The Changing World Order

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September 2020

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Introduction

I believe that the times ahead will be radically different from the times we have experienced so far in our lifetimes, though similar to many other times in history.

I believe this because about 18 months ago I undertook a study of the rises and declines of empires, their reserve currencies, and their markets, prompted by my seeing a number of unusual developments that hadn't happened before in my lifetime but that I knew had occurred numerous times in history. Most importantly, I was seeing the confluence of 1) high levels of indebtedness and extremely low interest rates, which limits central banks' powers to stimulate the economy, 2) large wealth gaps and political divisions within countries, which leads to increased social and political conflicts, and 3) a rising world power (China) challenging the overextended existing world power (the US), which causes external conflict. The most recent analogous time was the period from 1930 to 1945. This was very concerning to me.

As I studied history, I saw that this confluence of events was typical of periods that existed as roughly 10- to 20-year transition phases between big economic and political cycles that occurred over many years (e.g., 50-100 years). These big cycles were comprised of swings between 1) happy and prosperous periods in which wealth is pursued and created productively and those with power work harmoniously to facilitate this and 2) miserable, depressing periods in which there are fights over wealth and power that disrupt harmony and productivity. These bad periods consisted of revolutions and/or wars that were like cleansing storms that got rid of weaknesses and excesses (such as too much debt) and returned the fundamentals to a sounder footing (albeit painfully). They eventually caused adaptations that made the whole stronger, though they typically changed who was on top and the prevailing world order.

These cycles evolve over long periods, with transition periods coming along only about once in a lifetime, so they surprise us with circumstances that we've never encountered before. Because these circumstances are so unusual, they raise interesting questions that provide us with valuable clues as to why these things are happening and what the future will be like. For example, throughout my life, the dollar has been the world's reserve currency, monetary policy has been an effective tool for stimulating economies, and democracy and capitalism have been widely regarded as the superior political and economic systems. What if these things didn't exist in the future?

The answers to this question can only be found by studying the mechanics behind similar cases in history—the 1930-45 period but also the rise and fall of the British and Dutch empires, the rise and fall of Chinese dynasties, and others—to unlock an understanding of what is happening and what is likely to happen.[1] That was the purpose of this study. Then the pandemic came along, which was another one of those big events that never happened to me but happened many times before my lifetime that I needed to understand better.

My Approach

While it might seem odd that an investment manager who is required to make investment decisions on short time frames would pay so much attention to long-term history, through my experiences I have learned that I need this perspective to do my job well. My biggest mistakes in my career came from missing big market moves that hadn't happened in my lifetime but had happened many times before. These mistakes taught me that I needed to understand how economies and markets have worked throughout history and in faraway places so that I could learn the timeless and universal mechanics underlying them and develop timeless and universal principles for dealing with them well.

[1] To be clear, while I am describing these cycles of the past, I'm not one of those people who believe that what happened in the past will necessarily continue into the future without understanding the cause-effect mechanics that drive changes. My objective above all else is to have you join with me in looking at the cause-effect relationships and then to use that understanding to explore what might be coming at us and agree on principles to handle it in the best possible way.

The first of these big surprises for me came in 1971 when I was 22 years old and clerking on the floor of the New York Stock Exchange as a summer job. On a Sunday night, August 15, 1971, President Nixon announced that the US would renege on its promise to allow paper dollars to be turned in for gold. This led the dollar to plummet. As I listened to Nixon speak, I realized that the US government had defaulted on a promise and that money as we knew it had ceased to exist. That couldn't be good, I thought. So on Monday morning I walked onto the floor of the exchange expecting pandemonium as stocks took a dive. There was pandemonium all right, but not the sort I expected. Instead of falling, the stock market jumped about 4 percent. I was shocked. That is because I hadn't experienced a currency devaluation before. In the days that followed, I dug into history and saw that there were many cases of currency devaluations that had similar effects on stock markets. By studying further, I figured out why, and I learned something valuable that would help me many times in my future. It took a few more of those painful surprises to beat into my head the realization that I needed to understand all the big economic and market moves that had happened in the last 100+ years and in all major countries.

In other words, if some big and important event had happened in the past (like the Great Depression of the 1930s), I couldn't say for sure that it wouldn't happen to me, so I had to figure out how it worked and be prepared to deal with it well. Through my research I saw that there were many cases of the same type of thing happening (e.g., depressions) and that by studying them just like a doctor studies many cases of a particular type of disease, I could gain a deeper understanding of how they work. The way I work is to study as many of the important cases of a particular thing I can find and then to form a picture of a typical one, which I call an archetype. The archetype helps me see the cause-effect relationships that drive how these cases typically progress. Then I compare how the specific cases transpire relative to the archetypical one to understand what causes the differences between each case and the archetype. This process helps me refine my understanding of the cause-effect relationships to the point where I can create decision-making rules in the form of "if/then" statements—i.e., if X happens, then make Y bet. Then I watch actual events transpire relative to that template and what we are expecting. I do these things in a very systematic way with my partners at Bridgewater Associates.[2] If events are on track we continue to bet on what typically comes next, and if events start to deviate we try to understand why and course correct.

My approach is not an academic one created for scholarly purposes; it is a very practical one that I follow in order to do my job well. You see, as a global macro investor, the game I play requires me to understand what is likely to happen to economies better than the competition does. From my years of wrestling with the markets and trying to come up with principles for doing it well, I've learned that 1) one's ability to anticipate and deal well with the future depends on one's understanding of the cause-effect relationships that make things change and 2) one's ability to understand these cause-effect relationships comes from studying how they have played out in the past. How practical this approach has been can be measured in Bridgewater's performance track record over several decades.

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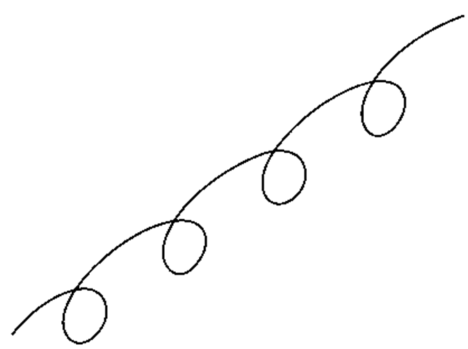
[2] For example, I have followed this approach for debt cycles because I've had to navigate many of them over the last 50 years and they are the most important force driving big shifts in economies and markets. If you are interested in understanding my template for understanding big debt crises and seeing all the cases that made it up, you can get Principles for Navigating Big Debt Crises in free digital form at www.economicprinciples.org or in print form for sale in bookstores or online. It was that perspective that allowed Bridgewater to navigate the 2008 financial crisis well when others struggled. I've studied many big, important things (e.g., depressions, hyperinflation, wars, balance of payments crises, etc.) by following this approach, usually because I was compelled to understand unusual things that appeared to be germinating around me.

This Approach Affects How I See Everything

Having done many such studies in pursuit of timeless and universal principles, I've learned that most things—e.g., prosperous periods, depressions, wars, revolutions, bull markets, bear markets, etc.—happen repeatedly through time. They come about for basically the same reasons, typically in cycles, and often in cycles that are as long or longer than our lifetimes. This has helped me come to see most everything as "another one of those," just like a biologist, upon encountering a creature in the wild, would identify what species (or "one of those") the creature belongs to, think about how that species of thing works, and try to have and use timeless and universal principles for dealing with it effectively.

Seeing events in this way helped shift my perspective from being caught in the blizzard of things coming at me to stepping above them to see their patterns through time.[3] The more related things I could understand in this way, the more I could see how they influence each other—e.g., how the economic cycle works with the political one—and how they interact over longer periods of time. I also learned that when I paid attention to the details I couldn't see the big picture and when I paid attention to the big picture I couldn't see the details. Yet in order to understand the patterns and the cause-effect relationships behind them, I needed to see with a higher-level, bigger-picture perspective and a lower-level, detailed perspective simultaneously, looking at the interrelationships between the most important forces over long periods of time. To me it appears that most things evolve upward (improve over time) with cycles around them, like an upward-pointing corkscrew:



For example, over time our living standards rise because we learn more, which leads to higher productivity, but we have ups and downs in the economy because we have debt cycles that drive actual economic activity up and down around that uptrend.

I believe that the reason people typically miss the big moments of evolution coming at them in life is that we each experience only tiny pieces of what's happening. We are like ants preoccupied with our jobs of carrying crumbs in our minuscule lifetimes instead of having a broader perspective of the big-picture patterns and cycles, the important interrelated things driving them, and where we are within the cycles and what's likely to transpire. From gaining this perspective, I've come to believe that there are only a limited number of personality types going down

[3] I approach seeing just about everything this way. For example, in building and running my business, I had to understand the realities of how people think and learn principles for dealing with these realities well, which I did using this same approach. If you are interested in what I learned about such non-economic and non-market things, I conveyed it in my book Principles: Life and Work, which is free in an app called "Principles in Action" available on the Apple App Store or is for sale in the usual bookstores.

a limited number of paths that lead them to encounter a limited number of situations to produce only a limited number of stories that repeat over time.[4]

The only things that change are the clothes the characters are wearing and the technologies they're using.

This Study & How I Came to Do It

One study led to another that led me to do this study. More specifically:

- Studying money and credit cycles throughout history made me aware of the long-term debt cycle (which typically lasts about 50-100 years), which led me to view what is happening now in a very different way than if I hadn't gained that perspective. For example, before interest rates hit 0% and central banks printed money and bought financial assets in response to the 2008-09 financial crisis I had studied that happening in the 1930s, which helped us navigate that crisis well. From that research, I also saw how and why these central bank actions pushed financial asset prices and the economy up, which widened the wealth gap and led to an era of populism and conflict. We are now seeing the same forces at play in the post-2009 period.

- In 2014, I wanted to forecast economic growth rates in a number of countries because they were relevant to our investment decisions. I used the same approach of studying many cases to find the drivers of growth and come up with timeless and universal indicators for anticipating countries' growth rates over 10-year periods. Through this process, I developed a deeper understanding of why some countries did well and others did poorly. I combined these indicators into gauges and equations that we use to produce 10-year growth estimates across the 20 largest economies. Besides being helpful to us, I saw that this study could help economic policy makers because, by seeing these timeless and universal cause-effect relationships, they could know that if they changed X, it would have Y effect in the future. I also saw how these 10-year leading economic indicators (such as the quality of education and the level of indebtedness) were worsening for the US relative to big emerging countries such as China and India. This study is called "Productivity and Structural Reform: Why Countries Succeed and Fail, and What Should Be Done So Failing Countries Succeed."

- Soon after the Trump election in 2016 and with increases in populism in developed countries becoming more apparent, I began a study of populism. That highlighted for me how gaps in wealth and values led to deep social and political conflicts in the 1930s that are similar to those that exist now. It also showed me how and why populists of the left and populists of the right were more nationalistic, militaristic, protectionist, and confrontational—and what such approaches led to. I saw how strong the conflict between the economic/political left and right could become and the strong impact this conflict has on economies, markets, wealth, and power, which gave me a better understanding of events that were and still are transpiring.

- From doing these studies, and from observing numerous things that were happening around me, I saw that America was experiencing very large gaps in people's economic conditions that were obscured by looking only at economic averages. So I divided the economy into quintiles—i.e., looking at the top 20% of income earners, the next 20%, and so on down to the bottom 20%—and examined the conditions of these populations individually. This resulted in two studies. In "Our Biggest Economic, Social, and Political Issue: The Two Economies—The Top 40% and the Bottom 60%," I saw the dramatic differences in conditions between the "haves" and the "have-nots," which helped me understand the greater polarity and populism I saw emerging. Those findings, as well as the intimate contact my wife and I were having through her philanthropic work with the reality of wealth and opportunity gaps in Connecticut communities and their schools, led to the research that became my "Why and How Capitalism Needs to Be Reformed" study.

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4. In my book Principles: Life and Work, I shared my thinking about these different ways of thinking. I won't describe them here but will direct you there should you be interested.

- At the same time, through my many years of international dealings in and research of other countries, I saw huge global economic and geopolitical shifts taking place, especially in China. I have been going to China a lot over the last 35 years and am lucky enough to have become well-acquainted with its top policy makers. This has helped me see up close how remarkable the advances in China have been and how excellent the capabilities and historical perspectives that were behind them are. These excellent capabilities and perspectives have led China to become an effective competitor with the US in production, trade, technology, geopolitics, and world capital markets.

By the way you can read these studies for free at www.economicprinciples.org.

So, what you are now reading came about because of my need to understand important things that are now happening that hadn't happened in my lifetime but have happened many times before that. These things are the result of three big forces and the questions they prompt.

1) THE LONG-TERM MONEY AND DEBT CYCLE

At no point in our lifetimes have interest rates been so low or negative on so much debt as they are today. At the start of 2020, more than $10 trillion of debt was at negative interest rates and an unusually large amount of additional new debt will soon need to be sold to finance deficits. This is happening at the same time as huge pension and healthcare obligations are coming due. These circumstances raised some interesting questions for me. Naturally I wondered why anyone would want to hold debt yielding a negative interest rate and how much lower interest rates can be pushed. I also wondered what will happen to economies and markets when they can't be pushed lower and how central banks could be stimulative when the next downturn inevitably came. Would central banks print a lot more currency, causing its value to go down? What would happen if the currency that the debt is denominated in goes down while interest rates are so low? These questions led me to ask what central banks will do if investors flee debt denominated in the world's reserve currencies (i.e., the dollar, the euro, and the yen), which would be expected if the money that they are being paid back in is both depreciating in value and paying interest rates that are so low.

In case you don't know, a reserve currency is a currency that is accepted around the world for transactions and savings. The country that gets to print the world's primary currency (now the US) is in a very privileged and powerful position, and debt that is denominated in the world's reserve currency (i.e., US dollar-denominated debt) is the most fundamental building block for the world's capital markets and the world's economies. It is also the case that all reserve currencies in the past have ceased to be reserve currencies, often coming to traumatic ends for the countries that enjoyed this special privilege. So I also began to wonder whether, when, and why the dollar will decline as the world's leading reserve currency—and how that would change the world as we know it.

2) THE DOMESTIC WEALTH AND POWER CYCLE

Wealth, values, and political gaps are now larger than at any other time during my lifetime. By studying the 1930s and other prior eras when polarity was also high, I've learned that which side wins out (i.e., left or right) will have very big impacts on economies and markets. So naturally I wondered what these gaps will lead to in our time. My examinations of history have taught me that, as a principle, *when wealth and values gaps are large and there is an economic downturn, it is likely that there will be lot of conflict about how to divide the pie.* How will people and policy makers be with each other when the next economic downturn arrives? I am especially concerned because of the previously mentioned limitations on central banks' abilities to cut interest adequately to stimulate the economy. In addition to these traditional tools being ineffective, printing money and buying financial assets (now called "quantitative easing") also widen the wealth gap because buying financial assets pushes up their prices, which benefits the wealthy who hold more financial assets than the poor.

3) THE INTERNATIONAL WEALTH AND POWER CYCLE

For the first time in my lifetime, the United States is encountering a rival power. China has become a competitive power to the United States in a number of ways and is growing at a faster rate than the US. If trends continue, it will be stronger than the United States in most of the most important ways that an empire becomes dominant. (Or at the very least, it will become a worthy competitor.) I have seen both countries up close for most of my life, and I now see how conflict is increasing fast, especially in the areas of trade, technology, geopolitics, capital, and economic/political/social ideologies. I can't help but wonder how these conflicts, and the changes in the world order that will result from them, will transpire in the years ahead and what effects that will have on us all.

The confluence of these three factors piques my curiosity and most draws my attention to similar periods such as the 1930-45 period and numerous others before that. More specifically, in 2008-09 like in 1929-32, there were serious debt and economic crises. In both cases, interest rates hit 0% which limited central banks' ability to use interest rate cuts to stimulate the economy, so, in both cases, central banks printed a lot of money to buy financial assets which, in both cases, caused financial asset prices to rise and widened the wealth gap. In both periods, wide wealth and income gaps led to a high level of political polarization that took the form of greater populism and battles between ardent socialist-led populists of the left and ardent capitalist-led populists of the right. These domestic conflicts stewed while emerging powers (Germany and Japan in the 1930s) increasingly challenged the existing world power. And finally, just like today, the confluence of these factors meant that it was impossible to understand any one of them without also understanding the overlapping influences among them.

As I studied these factors, I knew that the short-term debt cycle was getting late and I knew that a downturn would eventually come. I did not expect the global pandemic to be what brought it about, though I did know that past pandemics and other acts of nature (like droughts and floods) have sometimes been important contributors to these seismic shifts.

To gain the perspective I needed about these factors and what their confluence might mean, I looked at the rises and declines of all the major empires and their currencies over the last 500 years, focusing most closely on the three biggest ones: the US empire and the US dollar which are most important now, the British Empire and the British pound which were most important before that, and the Dutch Empire and the Dutch guilder before that. I also focused less closely on the other six other significant, though less dominant, empires of Germany, France, Russia, Japan, China, and India. Of those six, I gave China the most attention and looked at its history back to the year 600 because 1) China was so important throughout history, it's so important now, and it will likely be even more important in the future and 2) it provides many cases of dynasties rising and declining to look at to help me better understand the patterns and the forces behind them. In these cases, a clearer picture emerged of how other influences, most importantly technology and acts of nature, played significant roles. From examining all these cases across empires and across time, I saw that important empires typically lasted roughly 250 years, give or take 150 years, with big economic, debt, and political cycles within them lasting about 50-100 years. By studying how these rises and declines worked individually, I could see how they worked on average in an archetypical way, and then I could examine how they worked differently and why. Doing that taught me a lot. My challenge is in trying to convey it well.

Remember That What I Don't Know Is Much Greater Than What I Know

In asking these questions, from the outset I felt like an ant trying to understand the universe. I had many more questions than answers, and I knew that I was delving into numerous areas that others have devoted their lives to studying. So I aggressively and humbly drew on knowledge of some remarkable scholars and practitioners, who each had in-depth perspectives on some piece of the puzzle, though none had the holistic understanding that I needed in order to adequately answer all my questions. In order to understand all the cause-effect relationships behind these cycles, I combined my triangulation with historians (who specialized in different parts of this big, complicated history) and policy makers (who had both practical experiences and historical perspectives) with an examination of statistics drawn out of ancient and contemporary archives by my excellent research team and by reading a number of superb books on history.

While I have learned an enormous amount that I will put to good use, I recognize that what I know is still only a tiny portion of what I'd like to know in order to be confident about my outlook for the future. Still, I also know from experience that if I waited to learn enough to be satisfied with my knowledge, I'd never be able to use or convey what I have learned. So please understand that while this study will provide you with my very top-down, big-picture perspective on what I've learned and my very low-confidence outlook for the future, you should approach my conclusions as theories rather than facts. But please keep in mind that even with all of this, I have been wrong more times than I can remember, which is why I value diversification of my bets above all else. So, whenever I provide you with what I think, as I'm doing in this study, please realize that I'm just doing the best I can to openly convey to you my thinking.

It's up to you to assess for yourself what I've learned and do what you like with it.

How This Study Is Organized

As with all my studies, I will attempt to convey what I learned in both a very short, simple way and in a much longer, more comprehensive way. To do so, I wrote this book in two parts.

Part 1 summarizes all that I learned in one very simplified archetype of the rises and declines of empires, drawing from all my research of specific cases. In order to make the most important concepts easy to understand, I will write in the vernacular, favoring clarity over precision. As a result, some of my wording will be by and large accurate but not always precisely so. (I will also highlight key sentences in bold so that you can just read these and skip the rest to quickly get the big picture.) I will first distill my findings into an index of total power of empires, which provides an overview of the ebbs and flows of different powers, that is constituted from eight indexes of different types of power. Then I go into an explanation of these different types of power so you can understand how they work, and finally I discuss what I believe it all means for the future.

Part 2 shows all the individual cases in greater depth, sharing the same indices for all the major empires over the last 500 years. Providing the information this way allows you to get the gist of how I believe these rises and declines work by reading Part 1 and then to choose whether or not to go into Part 2 to see these interesting cases individually, in relation to each other, and in relation to the template explained in Part 1. I suggest that you read both parts because I expect that you will find the grand story of the evolutions of these countries over the last 500 years in Part 2 fascinating. That story presents a sequential picture of the world's evolution via the events that led the Dutch empire to rise and decline into the British empire, the British empire to rise and decline into the US empire, and the US empire to rise and enter its early decline into the rise of the Chinese empire. It also compares these three empires with those of Germany, France, Russia, Japan, China, and India. As you will see in the examinations of each of them, they all broadly followed the script, though not exactly. Additionally, I expect that you will find fascinating and invaluable the stories of the rises and declines of the Chinese dynasties since the year 600 just like I did. Studying the dynasties showed me what in China has been similar to the other rises and declines (which is most everything), helped me to see what was different (which is what makes China different from the West), and gave me an understanding of the perspectives of the Chinese leaders who all study these dynasties carefully for the lessons they provide.

Frankly, I don't know how I'd be able to navigate what is happening now and what will be coming at us without having studied all this history. But before we get into these fascinating individual cases, let's delve into the archetypical case.

Chapter 1:
The Big Cycles in a Tiny Nutshell

Chapter 1: The Big Cycles in a Tiny Nutshell

As explained in the Introduction, **the world order is now rapidly shifting in important ways that have never happened in our lifetimes but have happened many times before in history. My objective is to show you those cases and the mechanics that drove them and, with that perspective, attempt to imagine the future.**

What follows here is an ultra-distilled description of the dynamics that I saw in studying the rises and declines of the last three reserve currency empires (the Dutch, the British, and the American) and the six other significant empires (Germany, France, Russia, India, Japan, and China) over the last 500 years, as well as all of the major Chinese dynasties back to the Tang Dynasty around the year 600. The purpose of this chapter is simply to provide an archetype to use when looking at all the cycles, most importantly the one that we are now in. In studying these past cases, I saw clear patterns that occurred for logical reasons that I briefly summarize here and cover more completely in subsequent chapters of Part 1. While the focus of this chapter and this book are on those forces that affected the big cyclical swings in wealth and power, I also saw ripple-effect patterns in all dimensions of life including culture and the arts, social mores, and more, which I will touch on in Part 2. By going back and forth between this simple archetype and the cases shown in Part 2, we will see how the individual cases fit the archetype (which is essentially just the average of those cases) and how well the archetype describes the individual cases. Doing this, I hope, will help us better understand what is happening now.

I'm on a mission to figure out how the world works and to gain timeless and universal principles for dealing with it well. It's both a passion and a necessity for me. While the curiosities and concerns that I described earlier pulled me into doing this study, the process of conducting it gave me a much greater understanding of the really big picture on how the world works than I expected to get, and I want to share it with you. It made much clearer to me how peoples and countries succeed and fail over long swaths of time, it revealed giant cycles behind these ups and downs that I never knew existed, and, most importantly, it helped me put into perspective where we now are.

Though the big-picture synthesis that I'm sharing in this chapter is my own, you should know that **the theories I express in this book have been well-triangulated with other experts**. About two years ago, when I felt that I needed to answer the questions I described in the Introduction, I decided to immerse myself in research with my research team, digging through archives, speaking with the world's best scholars and practitioners who each had in-depth understandings of bits and pieces of the puzzle, reading relevant great books by insightful authors, and reflecting on the prior research I've done and the experiences that I have from investing globally for nearly 50 years.

Because I view this as an audacious, humbling, necessary, and fascinating undertaking, I am worried about missing important things and being wrong, so my process is iterative. I do my research, write it up, show it to the world's best scholars and practitioners to stress test it, explore potential improvements, write it up again, stress test it again, and so on, until I get to the point of diminishing returns. This study is the product of that exercise. While I can't be sure that I have the formula for what makes the world's greatest empires and their markets rise and fall exactly right, I'm confident that I got it by-and-large right. I also know that what I learned is essential for me putting what is happening now in perspective and for imagining how to deal with important events that have never happened in my lifetime but have happened repeatedly throughout history.

I'm passing it along to you to take or leave as you like.

The Countries Shown in This Study Had the Most Wealth and Power

This is a study of how wealth and power have come and gone in the leading powers of the world. To be clear, while the leading powers covered in this study were the richest and most powerful, they weren't necessarily the best-off countries for two reasons. First, while wealth and power are what most people want and will fight over most, some people and their countries don't think that these things are the most important and wouldn't think of fighting over them. For example, some believe that having peace and savoring life are more important than having a lot of wealth and power and wouldn't think of fighting hard enough to gain enough of the wealth and power to make it into the group included in this study. (By the way, I think there is a lot to be said for putting peace and savoring life ahead of gaining wealth and power.) Second, this group of countries excludes what I will call the "boutique countries" (like Switzerland and Singapore) that score very high in wealth and living standards but aren't large enough to become one of the biggest empires.

Throughout History Wealth Was Gained by Either Making It, Taking It from Others, or Finding It in the Ground

Let's start with the big-picture basics. Throughout recorded history various forms of groups of people (e.g., tribes, kingdoms, countries) have gained wealth and power by building it themselves, taking it from others, or finding it in the ground. When they gathered more wealth and power than any other group, they became the world's leading power, which allowed them to determine the world order. When they lost that wealth and power, which they all did, the world order changed in very big ways. That changed all aspects of life in profound ways. In this chapter we will describe how throughout time the same basic forces have ebbed and flowed in basically the same sorts of ways to cause these ups and downs in empires.

Human productivity is the most important force in causing the world's total wealth, power, and living standards to rise over time. Productivity—i.e., the output per person, driven by learning, building, and inventiveness—has steadily improved over time because learning is gained more than lost. However, it has risen at different rates for different people, though always for the same reasons—because of the quality of people's education, inventiveness, work ethic, and economic systems to turn ideas into output. These reasons are important for policy makers to understand in order to achieve the best possible outcomes for their countries, and for investors and companies to understand in order to determine where the best long-term investments are.

But while significant, these learnings and productivity improvements are evolutionary, so they are not what cause big shifts in who has what wealth and power. They are caused by a number of forces, most importantly money and credit cycles. I have identified 17 important forces in total that have explained almost all of these movements throughout time, which we will delve into in a moment. These big forces generally transpire in classic cycles that are mutually reinforcing in ways that tend to create a single very big cycle of ups and downs. This big archetypical cycle governs the rising and declining of empires and influences everything about them, including their currencies and markets (which I'm especially interested in). As with the archetypical debt cycle, which I outlined in *Principles for Navigating Big Debt Crises*, this big cycle represents the archetypical one that we can compare others to, including the one that we are now in. I believe that we need to understand this archetypical cycle in order to put where we are in perspective and attempt to squint into the future.

Of the 17 forces, the debt cycle, the money and credit cycle, the wealth gap cycle, and the global geopolitical cycle are most important to understand in order to put where we are in perspective. For reasons explained in this book, I believe that we are now seeing an archetypical big shift in relative wealth and power and the world order that will affect everyone in all countries in profound ways. This big wealth and power shift is not obvious because most people don't have the patterns of history in their minds to see this one as "another one of those." So in this first chapter, I will describe in a very brief way how I see the archetypical mechanics behind rises and declines of empires and their markets working. Then we will delve into the various factors happening in the various past cases.

To See the Big Picture, You Can't Focus on the Details

While I will attempt to paint this big sweeping picture accurately, I can't paint it in a precise way, and, in order for you to see it and understand it, you can't try to do so in a precise way. That is because we are looking at evolution over long time frames. To see it, you will have to let go of the details. Of course, when the details are important, which they often are, I will go from the very big, imprecise picture to a more detailed one.

Looking at what happened in the past from this very big-picture perspective will radically alter how you see things. For example, because the span of time covered is so large, many of the most fundamental things that we take for granted and many of the terms we use to describe them did not exist over the full period of time. As a result, I will be imprecise in my wording so that I can convey the big picture without getting tripped up on what might seem to be big things but, in the scope of what we are looking at, are relative details.

For example, I wrestled with how much I should worry about **the differences between countries, kingdoms, nations, states, tribes, empires, and dynasties.** Nowadays we think mostly in terms of countries. However, countries as we know them didn't come into existence until the 17th century, after Europe's Thirty Years' War. In other words, before then there were no countries—generally speaking, though not always, there were kingdoms instead. In some places, kingdoms still exist and can be confused with being countries, and some places are both. Generally speaking, though not always, kingdoms are small, countries are bigger, and empires are biggest (spreading beyond the kingdom or the country). The relationships between them are often not all that clear. The British Empire was mostly a kingdom that gradually evolved into a country and then an empire that extended way beyond England's borders, so that its leaders controlled broad areas and many non-English peoples. It's also the case that each of these types of singularly controlled entities—countries, kingdoms, tribes, empires, etc.—controls its population in different ways, which further confuses things for those who seek precision. For example, in some cases empires are areas that are occupied by a dominant power while in other cases empires are areas influenced by a dominant power that controls other areas through threats and rewards. The British Empire generally occupied the countries in its empire while the American Empire has controlled more via rewards and threats—though that is not entirely true, as at the time of this writing the US has military bases in 70 countries. So, though it is clear that there is an American Empire, it is less clear exactly what is in it. Anyway, you get my point—that trying to be precise can stand in the way of conveying the biggest, most important things. So in this chapter you are going to have to bear with my sweeping imprecisions. You will also understand why I will henceforth imprecisely call these entities countries, even though not all of them were countries, technically speaking.

Along these lines, some will argue that my comparing different countries with different systems in different times is impossible. While I can understand that perspective, I want to assure you that I will seek to explain whatever major differences exist, that the timeless and universal similarities are much greater than the differences, and that to let the differences stand in the way of seeing those similarities which provide us with the lessons of history we need, would be tragic.

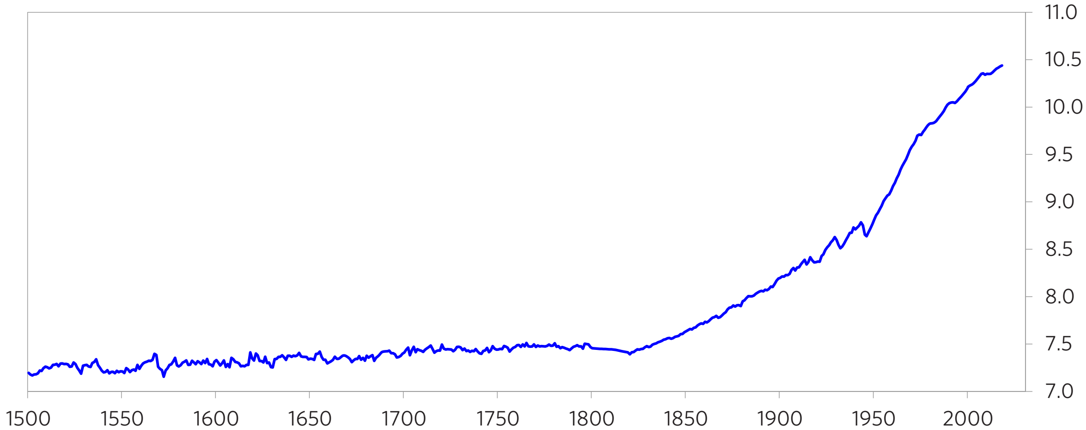
Most Everything Evolves in an Uptrend with Cycles Around It

As mentioned earlier, over long periods of time we evolve because we learn to do things better, which raises our productivity. Over the long run, that is the most important force, though over the short run, the swings around this upward trend are most important. This is conveyed in the chart below, which shows the estimated output (i.e., estimated real GDP) per person over the last 500 years. As shown from this top-down, big-picture perspective, output per person appears to be steadily improving, though very slowly in the early years and faster after around 1800, when the slope up becomes much steeper, reflecting the faster productivity gains. This shift from slower productivity gains to faster productivity gains was primarily due to the improvements in broad learning and the conversion of that learning into productivity. That was brought about by a number of factors going as far back as the invention of the printing press in Europe in the mid-15th century (it had been used in China substantially earlier), which increased the knowledge and education available to many more people, contributing to the European Renaissance, the Scientific Revolution, the Enlightenment, and the first Industrial Revolution in Britain.

That broader-based learning also shifted wealth and power away from 1) **an agriculture-based economy** in which land ownership was the principal source of power, and the monarchies, nobles, and church worked together to maintain their grip on it, toward 2) **an industrial-based economy** in which inventive capitalists created and owned the means of production of industrial goods and worked together with those in government to maintain the system that allowed them to have the wealth and power. In other words, since the Industrial Revolution, which brought about that change, we have been operating in a system in which wealth and power have primarily come more from the combination of education, inventiveness, and capitalism, with those who run governments working with those who control most of the wealth and education. While in the first half of the 20th century there were deviations away from capitalism toward communism (which in the years between 1950 and 1990 showed that it didn't work in the forms that have been tried) and socialism (which is essentially a hybrid wealth and opportunity distribution system that people can debate the merit of), the formula for success has been a system in which educated people come up with innovations, receive funding through capital markets, and own the means by which their innovations are turned into the production and allocation of resources, allowing them to be rewarded by profit-making. This happens best in capitalism and the government systems that work symbiotically with it. At the same time, how this is happening continues to evolve. For example, while ages ago agricultural land and agricultural production were worth the most and that evolved into machines and what they produced being worth the most, digital things that have no apparent physical existence (data and information processing) are evolving to become worth the most. That will create a fight over who obtains the data and how they use it to have wealth and power. (We will delve into that in the chapter that deals with learning and improving to raise productivity.) The main point I'm trying to get across is that the greatest power that produces these uptrends in living standards is humanity's ability to adapt and improve—so much so that movements around that uptrend caused by everything else don't even show up when one looks at what's happening from the higher level in order to gain a bigger-picture perspective.

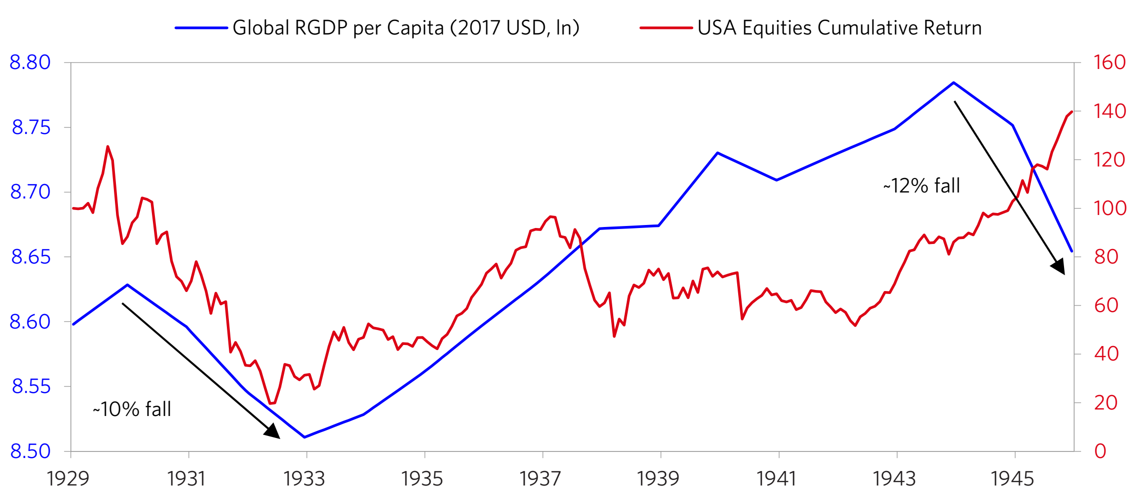
At the same time, like all such systems, capitalism has failed to do that job well enough to achieve the goals of producing equal opportunity and maximum productivity through broad-based human capital development (for more on that see "Why and How Capitalism Needs to Be Reformed"). But, to reiterate the main point: from the top-down, big-picture level shown in the below chart, things pretty much keep getting better because people keep getting smarter and keep conveying that smartness into more and better output.

Global RGDP per Capita (2017 USD, ln)



Underneath this relatively smooth upward trajectory of learning and productivity are turbulent historical periods, including booms, busts, revolutions, and wars. History shows us that almost all of these turbulent times are due to money and credit collapses, big wealth gaps, fighting over wealth and power (i.e., revolutions and wars), and severe acts of nature (like droughts, floods, and epidemics). It also shows that how bad these periods get depends almost exclusively on how strong the countries are to endure them. For example, those with large savings, low debts, and a strong reserve currency can withstand economic and credit collapses better than those that don't have much savings, have a lot of debt, and don't have a strong reserve currency. Likewise those with strong and capable leadership and civil populations can be managed better than those that don't have these, and those that are more inventive will adapt better than those that are less inventive. As you will read in the cases in Part 2, these factors are measurable timeless and universal truths.

Because these turbulent times are small in relation to the evolutionary uptrend of humanity's capacity to adapt and invent, they barely show up in the previous chart, appearing only as relatively minor wiggles. Yet these wiggles seem very big to us because we are so small and short-lived. Take the 1930-45 depression and war period, for example. The levels of the US stock market and global economic activity are shown in the chart below. As you can see, the economy fell by about 10%, and the stock market fell by about 85% and then began to recover.



This is part of the classic money and credit cycle that has happened for as long as there has been recorded history and that I will explain in the money and credit cycles chapter. More specifically, a credit collapse that happened because there was too much debt so the central government had to spend a lot of money it didn't have and make it easier for debtors to pay their debt. To do that, the central bank had to print money and liberally provide credit—like they are doing now. When credit collapsed, spending collapsed with it so they had to print money. In that case the debt bust was the natural extension of the Roaring '20s boom that became a debt-financed bubble that popped in 1929. Almost all debt busts, including the one we are now in, come about for basically the same reason of extrapolating the uptrend forward and over-borrowing to bet heavily on things going up and being hurt when they go down.

Back then, the popping of the bubble and the resulting economic bust were the biggest influences on the 1930-45 period's internal and external fight for wealth and power. Then, like now and like in most other cases, there were large wealth gaps, which when heightened by debt/economic collapses led to revolutionary changes in social and economic programs and big wealth transfers that were manifest in different systems in different places. Clashes and wars developed over which of these systems was best and as different people and countries fought to get their share. The popular systems that were fought over included communism (which supported dividing most wealth pretty much equally), fascism (which was autocratic state-controlled capitalism), and socialized democracy (which redistributed a lot of wealth while maintaining democracy and a more free-market capitalism—though often in a more autocratic form during the war years). There are always arguments or fights between those who want to make big redistributions of wealth and those who don't. In the US in the 1930s, Mother Nature also gave us a painful drought.

Looking over the whole of the cases I examined, I'd say that past economic and market declines each lasted about three years until they were reversed through a big restructuring process that included restructuring of the debt and the monetary and credit system, fiscal policies of taxation and spending, and changes in political power. The quicker the printing of money to fill the debt holes, the quicker the closing of the deflationary depression and the sooner the worrying about the value of money begins. In the 1930s US case, the stock market and the economy bottomed the day that newly elected President Roosevelt announced that he would default on the government's promise to let people turn in their money for gold, and that the government would create enough money and credit so that people could get their money out of banks and others could get money and credit to buy things and invest. As shown in the previous chart, that created a big improvement but not a full recovery. Then came the war, which resulted from fighting over wealth and power as the emerging powers of Germany and Japan challenged the existing leading world powers of Great Britain, France, and eventually the US (which was dragged into the war). The war period raised economic output of things that were used in war, but it would be a misnomer to call the war years a "productive period"—even though when measured in output per person, it was—because there was so much destruction. At the end of the war, global GDP per capita had fallen by about 12%, much of which was driven by declines in the economies of countries that lost the war. The stress test that these years represented wiped out a lot, made clear who the winners and losers were, and led to a new beginning and a new world order in 1945. Classically that was followed by a lengthy period of peace and prosperity that became overextended so that all countries are now, 75 years later, being stress tested again.

Most cycles in history happened for basically the same reasons. For example, the 1907-19 period began with the Panic of 1907, which, like the 1929-32 money and credit crisis following the Roaring '20s, was the result of boom periods (the Gilded Age in the US, the Belle Époque in continental Europe, and the Victorian era in Great Britain) becoming debt-financed bubbles that led to economic and market declines. These declines also happened when there were large wealth gaps that led to big wealth redistributions and a world war. The wealth redistributions, like those in the 1930-45 period, came about through large increases in taxes and government spending, big deficits, and big changes in monetary policies that monetized the deficits. Then Mother Nature brought about a pandemic (the Spanish flu) that intensified the stress test and the resulting restructuring process. This stress test and global economic and geopolitical restructuring led to a new world order in 1919, which was expressed in the Treaty of Versailles. That ushered in the 1920s debt-financed boom, which led to the 1930-45 period and the same things happening again.

Basically these periods of destruction/reconstruction cleaned out the weak, made clear who the powerful were, and established revolutionary new approaches to doing things that set the stage for periods of reconstruction and prosperity that became overextended as debt bubbles with large wealth gaps and led to debt busts that produced new stress tests and destruction/reconstruction periods, which eventually again led to the strong gaining relative to the weak, and so on.

What are these destruction/reconstruction periods like for the people who experience them? Since you haven't been through one of these and the stories about them are very scary, the prospect of being in one is very scary to most people. It is true that these destruction/reconstruction periods have produced tremendous human suffering both financially and, more importantly, in lost or damaged human lives. Like the coronavirus experience, what each of these destruction/reconstruction periods has meant and will mean for each person depends on each person's own experiences, with the broader deep destruction periods damaging the most people. While the consequences are worse for some people, virtually no one escapes the damage. Still, history has shown us that typically the majority of people stay employed in the depressions, are unharmed in the shooting wars, and survive the natural disasters.

Some people who struggled through them have even described these very difficult times as bringing about important, good things like drawing people closer together, building strength of character, learning to appreciate the basics, etc. For example, Tom Brokaw called the people who went through these times "the Greatest Generation" because of the strength of character it gave them. My parents and aunts and uncles who went through the Great Depression and World War II, as well as others of their era whom I've spoken to in other countries who went through their own versions of this destruction period, saw it that way too. Keep in mind that economic destruction periods and war periods typically don't last very long—they tend to last roughly two or three years. And the lengths and severities of natural disasters (like droughts, floods, and epidemics) vary, though they typically lessen in painfulness as adaptations are made. One rarely gets all three of these types of big crises—i.e., 1) economic, 2) revolution and/or war, and 3) natural disaster—at the same time.

My point is that while these periods can be depressing and lead to a lot of human suffering, we should never, especially in the worst of times, lose sight of the fact that humanity's power to adapt and quickly get to new, higher levels of well-being is much greater than all the bad stuff that can be thrown at us. For that reason, I believe that it is smart to believe and invest in humanity's adaptability and inventiveness. So, **while I am pretty sure that in the coming years both you and the world order will experience big challenges and changes, I believe that humanity will become smarter and stronger in very practical ways that will lead us to overcome these challenging times and go on to new and higher levels of prosperity.**

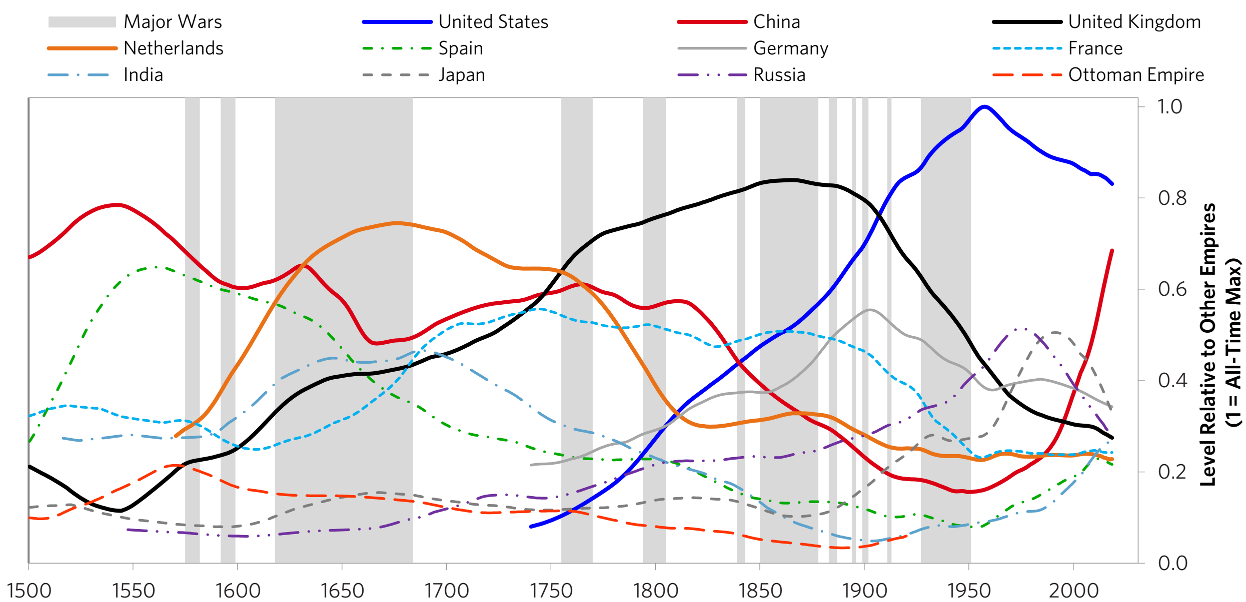
Now let's look at the cycles of rises and declines in the wealth and power of the major countries over the last 500 years.

The Shifts in Wealth and Power That Occurred Between Countries

While the first chart of rising productivity shared previously was for the whole world (to the best of our ability to measure it), it doesn't show the shifts in wealth and power that occurred between countries. The chart below shows you the relative wealth and power of the 11 leading empires over the last 500 years.[5] Each one of these indices of wealth and power is a composite of eight different measures that I will explain shortly. Though these indices aren't perfect because all data through time isn't perfect, they do an excellent job of painting the big picture. As you can see, nearly all of these empires saw periods of ascendancy followed by periods of decline. The thicker lines represent the four most important empires: the Dutch, British, American, and Chinese. These empires held the last three reserve currencies—the US now, the British before it, and the Dutch before that. China is included because it has risen to be the second-most powerful empire/country and because it was so consistently powerful in most years prior to around 1850. To very briefly summarize what the chart shows:

- China was dominant for centuries (consistently outcompeting Europe in goods trade), though it entered a steep decline starting in the 1800s.
- The Netherlands, a relatively small country, became one of the world's great empires in the 1600s.
- The UK followed a very similar path, peaking in the 1800s.
- Finally, the US rose to become the world's superpower over the last 150 years, though particularly during and after WWII, and is now in relative decline while China is catching up once again.

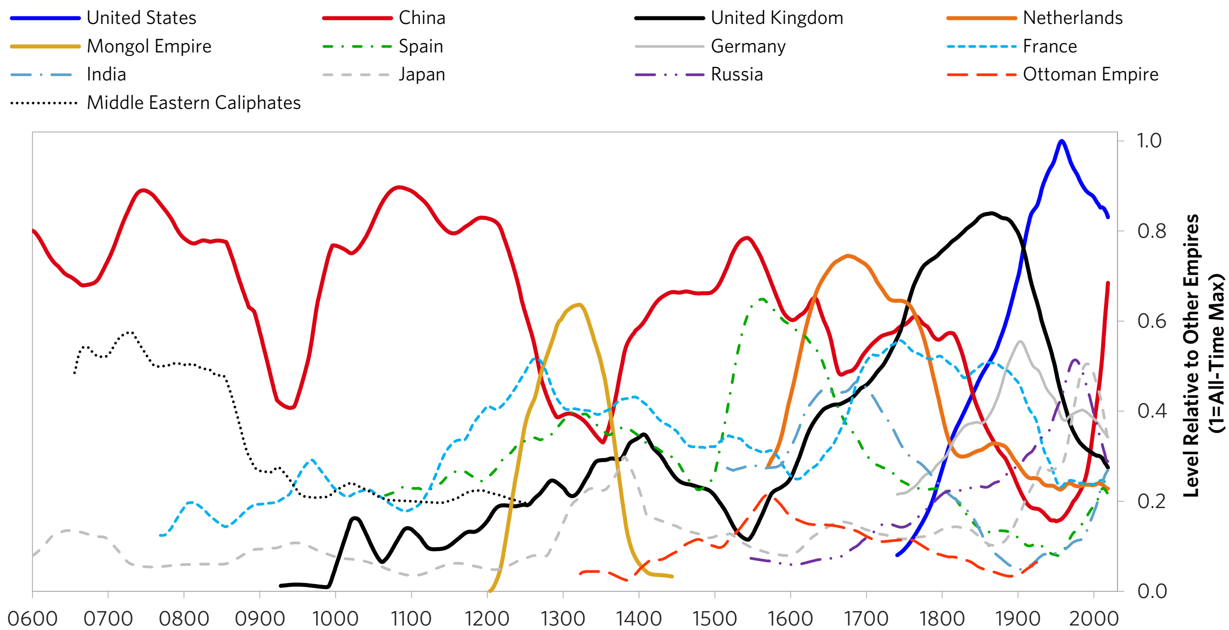
Rough Estimates of Relative Standing of Great Empires



[5] These indices were made up of a number of different statistics, some of which were directly comparable and some of which were broadly analogous or broadly indicative. In some cases, a data series that stopped at a certain point had to be spliced with a series that continued back in time. Additionally, the lines shown on the chart are 30-year moving averages of these indices, shifted so that there is no lag. I chose to use the smoothed series because the volatility of the unsmoothed series was too great to allow one to see the big movements. Going forward, I will use these very smoothed versions when looking at the very long term and much less smoothed or unsmoothed versions when looking at these developments up close, because the most important developments were best captured this way.

Now let's look at the same chart that extends the data all the way back to the year 600. I focused on the one above (which covers just the last 500 years) rather than the one below (which covers the last 1,400 years) because it includes the empires I focused on most intently on and is simpler, though with 11 countries, 12 major wars, and over 500 years, it can hardly be called simple. Still, the one below is more extensive and worth glancing at. I left out the shading of the war periods to lessen the confusion. As shown, in the pre-1500 period, China was almost always the most powerful, though the Middle Eastern caliphates, the French, the Mongols, the Spanish, and the Ottomans were also in the picture.

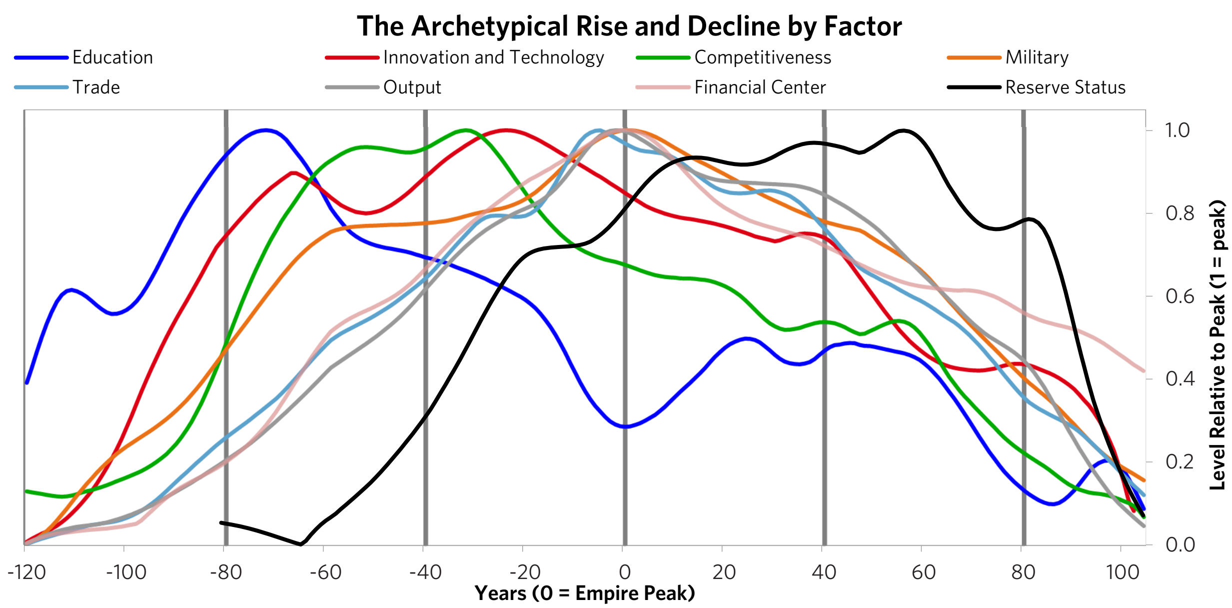
Rough Estimates of Relative Standing of Great Empires



Our Measures of Wealth and Power

The single measure of wealth and power that I showed you for each country in the prior charts is made up as a roughly equal average of eight measures of strength. They are: 1) education, 2) competitiveness, 3) technology, 4) economic output, 5) share of world trade, 6) military strength, 7) financial center strength, and 8) reserve currency. While there are more measures of and influences on power that we will explore later, let's begin by focusing on these key eight.

The chart below shows the average of each of these measures of strength, with most of the weight on the most recent three reserve countries (i.e., the US, the UK, and the Dutch).[6]



The lines on the chart do a pretty good job of telling the story of why and how the rises and declines took place. Using these and referring to some additional factors that we will delve deeper into later, I will describe that cycle in a nutshell. But before I start, it's worth noting that all of these measures of strength rose and declined over the arc of the empire. That's because these strengths and weaknesses are mutually reinforcing—i.e., strengths and weaknesses in education, competitiveness, economic output, share of world trade, etc., contribute to the others being strong or weak, for logical reasons. For example, it makes sense that better-educated people would produce societies that are more innovative, competitive, and productive. I call this cyclical interrelated move up and down "the Big Cycle." Take note of the order that these items move up and down in the chart because it is broadly indicative of the processes that lead to the rising and declining of empires. For example, quality of education has been the long-leading strength of rises and declines in these measures of power, and the long-lagging strength has been the reserve currency. That is because strong education leads to strengths in most areas, including the creation of the world's most common currency. That common currency, just like the world's common language, tends to stay around because the habit of usage lasts longer than the strengths that made it so commonly used.

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6. We show where key indicators were relative to their history by averaging them across the cases. The chart is shown such that a value of "1" represents the peak in that indicator relative to history and "0" represents the trough. The timeline is shown in years with "0" representing roughly when the country was at its peak (i.e., when the average across gauges was at its peak). In the rest of this section, we walk through each of the stages of the archetype in more detail. While the charts show the countries that produced global reserve currencies, we'll also heavily reference China, which was a dominant empire for centuries, though it never established a reserve currency.

The Big Cycle

Broadly speaking, we can look at these rises and declines as happening in three phases: 1) the ascent phase, which is characterized by the gaining of competitive advantages; 2) the top phase, which is characterized by sustaining the strength but eventually sowing the seeds for the loss of the competitive advantages that were behind the ascent; and 3) the decline phase, which is characterized by self-reinforcing declines in all of these strengths.

In a nutshell, **the ascent phase** comes about when there is…

- strong enough and capable enough leadership to provide the essential ingredients for success, which include…
- strong education. By strong education I don't just mean teaching knowledge and skills; I also mean teaching…
- strong character, civility, and a strong work ethic, which are typically taught in the family as well as in school. These lead to improved civility that is reflected in factors such as…
- low corruption and high respect for rules, such as rule of law.
- People being able to work well together, united behind a common view of how they should be together and a common purpose, is also important. When people have knowledge, skills, good character, and the civility to behave and work well together, and there is…
- a good system for allocating resources, which is significantly improved by…
- being open to the best global thinking, the country has the most important ingredients in order to succeed. That lead to them gaining…
- greater competitiveness in the global market, which brings in revenues that are greater than expenses, which leads them to have…
- strong income growth, which allows them to make…
- increased investments to improve their infrastructures, education systems, and research and development, which leads them to have…
- higher productivity (more valuable output per hour worked). Increasing productivity is what increases wealth and productive capabilities. When they achieve higher productivity levels, they can become productive inventors of…
- new technologies. These new technologies are valuable for both commerce and the military. As these countries become more competitive in these ways, naturally they gain…
- a significant share of world trade, which requires them to have…
- a strong military to protect their trade routes and to influence those who are important to it outside its borders. In becoming economically pre-eminent they develop the world's leading…
- financial centers for attracting and distributing capital. (For example, Amsterdam was the world's financial center when the Dutch empire was pre-eminent, London was it when the British empire was on top, and New York is now it because the US is on top, but China is beginning to develop its own financial center in Shanghai.) In expanding their trade globally, these growing empires bring their…
- strong equity, currency, and credit markets. Naturally those dominant in trade and capital flows have their currency used much more as the preferred global medium of exchange and the preferred storehold of wealth, which leads to their currency becoming a reserve currency. That is how the Dutch guilder became the world's reserve currency when the Dutch Empire was pre-eminent, the British pound became the world's reserve currency when the British Empire was pre-eminent, and the US dollar became the world's reserve currency in 1944 when the US was about to win World War II and was clearly pre-eminent economically, financially, and militarily. Having one's currency be a reserve currency naturally gives that country greater borrowing and purchasing power. As shown in the most recent chart, gaining and losing of reserve currency status happens with a significant lag to the other fundamentals.

It is through the mutually reinforcing and unwavering improvements in these things that countries rise and sustain their powers. Those who build empires allocate resources well by coordinating their economic, political, and military forces into a profitable economic/political/military system. For example, the Dutch created the Dutch East India Company, the British created the British East India Company, the US created the military-industrial complex, and China has Chinese state capitalism. Such economic, political, and military coordination has proved essential for all empires to profitably expand.

In a nutshell, the top phase typically occurs because within the successes behind the ascent lie the seeds of decline. More specifically, as a rule:

- Prosperous periods lead to people earning more, which naturally leads them to become more expensive, which naturally makes them less competitive relative to those in countries where people are willing to work for less.
- Those who are most successful typically have their ways of being more successful copied by emerging competitors, which also contributes to the leading power becoming less competitive. For example, British shipbuilders, who had less expensive workers than Dutch shipbuilders, hired Dutch shipbuilding architects to design ships that were built more cost-effectively than the Dutch ships. Because it takes less time and money to copy than invent, all else being equal, emerging empires tend to gain on mature empires through copying.
- Those who become richer naturally tend to work less hard, engage in more leisurely and less productive activities, and at the extreme, become decadent and unproductive. That is especially true as generations change from those who had to be strong and work hard to achieve success to those who inherited wealth—these younger generations tend to be less strong/battle-hardened, which makes them more vulnerable to challenges. Over time people in the prosperous society tend to want and need more luxuries and more leisure and tend to get weaker and more overextended in order to get them, which makes them more vulnerable.
- The currencies of countries that are richest and most powerful become the world's reserve currencies, which gives them the "exorbitant privilege" of being able to borrow more money, which gets them deeper into debt. This boosts the leading empire's spending power over the short term and weakens it over the longer run. In other words, when borrowing and spending are strong, the leading empire appears strong while its finances are in fact being weakened. That borrowing typically sustains its power beyond its fundamentals by financing both domestic over-consumption and the military and wars that are required to maintain its empire. This over-borrowing can go on for quite a while and even be self-reinforcing, because it strengthens the reserve currency, which raises the returns of foreign lenders who lend in it. When the richest get into debt by borrowing from the poorest, it is a very early sign of a relative wealth shift. For example, in the 1980s, when the US had a per capita income that was 40 times that of China's, it started borrowing from Chinese who wanted to save in US dollars because the dollar was the world's reserve currency. This was an early sign of that dynamic beginning. Similarly, the British borrowed a lot of money from its much poorer colonies, particularly during WWII, and the Dutch did the same before their top, which contributed to the reversals in their currencies and economies when the willingness to hold their currency and debt suddenly fell. The United States has certainly done a lot of borrowing and monetization of its debt, though this hasn't yet caused a reduced demand for the US currency and debt.
- The leading country extends the empire to the point that the empire has become uneconomical to support and defend. As the costs of maintaining it become greater than the revenue it brings in, the unprofitability of the empire further weakens the leading country financially. That is certainly the case for the US.
- Economic success naturally leads to larger wealth gaps because those who produce a lot of wealth disproportionately benefit. Those with wealth and power (e.g., those who benefit commercially and those who run the government) naturally work in mutually supportive ways to maintain the existing system that benefits them while other segments of the population lag, until the split becomes so large that it is perceived as intolerably unfair. This is an issue in the US.

The decline phase typically happens as the excesses of the top phase are reversed in a mutually reinforcing set of declines, and because a competitive power gains relative strength in the previously described areas.

- When debts become very large, when the central banks lose their ability to stimulate debt and economic growth, and when there is an economic downturn, that leads to debt and economic problems and to more printing of money, which eventually devalues it.
- When wealth and values gaps get large and there is a lot of economic stress (wherever that stress comes from), there are high probabilities of greater conflict between the rich and the poor, at first gradually and then increasingly intensely. That combination of circumstances typically leads to increased political extremism—i.e., populism of both the left (i.e., those who seek to redistribute the wealth, such as socialists and communists) and the right (i.e., those who seek to maintain the wealth in the hands of the rich, such as the capitalists). That happens in both democratically and autocratically run countries. For example, in the 1930s, increasingly extreme populists of the left became communist and those from the right became fascist. Populists tend to be more autocratic, more inclined to fight, and more inclined to respect power than law.
- When the rich fear that their money will be taken away and/or that they will be treated with hostility, that leads them to move their money and themselves to places, assets, and/or currencies that they feel are safer. If allowed to continue, these movements reduce the tax and spending revenue in the locations experiencing these conflicts, which leads in turn to a classic self-reinforcing hollowing-out process in the places that money is leaving. That's because less tax money worsens conditions, which raises tensions and taxes, causing still more emigration of the rich and even worse conditions, and so on. For example, we are now seeing some of that happening via the rich leaving higher-tax states where there is financial stress and large wealth gaps. When it gets bad enough, governments no longer allow that to happen—i.e., they outlaw the flows of money out of the places that are losing them and to the places, assets, and/or currencies that are getting them, which causes further panic by those seeking to protect themselves.
- When these sorts of disruptive conditions exist, they undermine productivity; that shrinks the economic pie and causes more conflict about how to divide the shrinking resources well, which leads to even more internal conflict that increasingly leads to fighting between the populist leaders from both sides who want to take control to bring about order. That is when democracy is most challenged by autocracy. This is why in the 1920s and 1930s Germany, Japan, Italy, and Spain (and a number of smaller countries) all turned away from democracy to autocratic leadership, and the major democracies (the US, the UK, and France) became more autocratic. It is widely believed that, during periods of chaos, more centralized and autocratic decision making is preferable to less centralized and more democratic, debate-based decision making, so this movement is not without merit when there is unruly, violent crowd fighting.
- When a country gains enough economic, geopolitical, and military power that it can challenge the existing dominant power, there are many areas of potential conflict between these rival world powers. Since there is no system for peacefully adjudicating such disputes, these conflicts are typically resolved through tests of power.
- When a leading country's costs of maintaining its empire abroad become greater than the revenue that the empire brings in, that economically weakens the country. When that happens at the same time that other countries are emerging as rival powers, the leading power feels compelled to defend its interests. This is especially threatening to the leading country both economically and militarily, because greater military spending is required to maintain the empire, which comes when worsening domestic economic conditions are making it more difficult for leaders to tax and more necessary for them to spend on domestic supports. Seeing this dilemma, enemy countries are more inclined to mount a challenge. Then the leading power is faced with the difficult economic and military choice of fighting or retreating.
- When other exogenous shocks, such as acts of nature (e.g., plagues, droughts, or floods), occur during times of vulnerabilities such as those mentioned above, they increase the risk of a self-reinforcing downward spiral.
- When the leadership of the country is too weak to provide what the country needs to be successful at its stage in the cycle, that is also a problem. Of course, because each leader is responsible for leading during only a tiny portion of the cycle, they have to deal with, and can't change, the condition of the country that they inherit. This means that destiny, more than the leader, is in control.

I threw a lot at you fast in the last few paragraphs in which I tried to briefly describe the major cause-effect relationship, so you might want to read them again slowly so you can see if that sequence makes sense to you. In Part 2, we will get into a number of specific cases in greater depth and you will see the patterns of these cycles emerge, albeit not in a precise way. The fact that they occur and the reasons for them occurring are less disputable than the exact timing of their occurrences.

To summarize, around the upward trend of productivity gains that produce rising wealth and better living standards, there are cycles that produce 1) <u>prosperous periods of building</u>, in which the country is fundamentally strong because there are a) relatively low levels of indebtedness, b) relatively small wealth, values, and political gaps, c) people working effectively together to produce prosperity, d) good education and infrastructure, e) strong and capable leadership, and f) a peaceful world order that is guided by one or more dominant world powers. These are the prosperous and enjoyable periods. When they are taken to excess, which they always are, the excesses lead to 2) <u>depressing periods of destruction and restructuring</u>, in which the country's fundamental weaknesses of a) high levels of indebtedness, b) large wealth, values, and political gaps, c) different factions of people unable to work well together, d) poor education and poor infrastructure, and e) the struggle to maintain an overextended empire under the challenge of emerging powerful rivals lead to a painful period of fighting, destruction, and then a restructuring that establishes a new order, setting the stage for a new period of building.

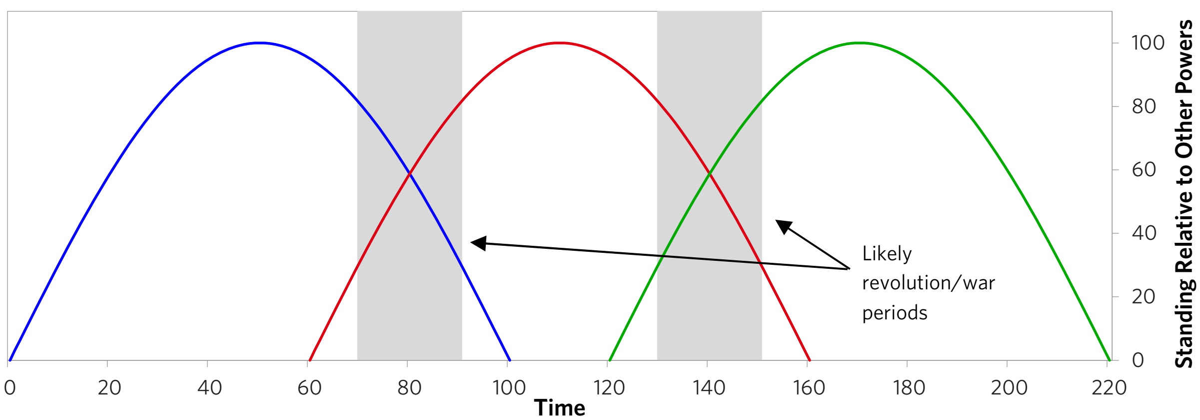
Looked at even more simply, the items shown below are the main forces that drive the rises and declines of countries. For any country, the more items it has on the **left**, the more it is likely to ascend; the more items it has on the **right**, the more it is likely to decline. Those that make it to the top acquire the characteristics on the left (which causes them to ascend), but with time they move to the right, which makes them more prone to decline, while new competitive countries acquire the characteristics to the left until they are stronger, at which time the shift occurs.

Strong	*Leadership Capabilities*	*Weak*
High	*Education Levels*	*Low*
Strong	*Character/Determination*	*Weak*
Strong	*Rule of Law*	*Weak*
Low	*Corruption*	*High*
High	*Resource Allocation Efficiency*	*Low*
A Lot	*Openness to Global Thinking*	*Little*
High	*Productivity/Output Growth*	*Low*
Inexpensive	*Cost Competitiveness*	*Expensive*
Favorable	*Trade and Capital Flows*	*Unfavorable*
High	*Infrastructure & Investment*	*Low*
Low	*Indebtedness*	*High*
High	*Military Strength*	*Low*
Small	*Gaps in Wealth, Opportunity & Values*	*Large*
Low	*Internal Conflict (Social & Political)*	*High*
Advantageous	*Geography*	*Disadvantageous*
Stabilizing	*Acts of Nature*	*Disruptive*

That, in a nutshell, is what my research has shown makes the cycles of rising and declining empires occur. Now, for the fun of it you might want to go through a little exercise of ticking off where each of those measures is for each country you're interested in. Rank each country on a 1-10 scale for each attribute, beginning with 10 on the far left and 1 on the far right. If you add these all these rankings up, the higher the number, the greater the probability of the country rising on a relative basis. The lower the number, the more likely it will fall. Take a moment to calculate where the United States is, where China is, where Italy is, where Brazil is, and so on. Later in this report we will do exactly this in a systematic way for each of the largest 20 countries using key performance indicators that I will show you.

Because all of these factors, both ascending and descending, tend to be mutually reinforcing, it is not a coincidence that large wealth gaps, debt crises, revolutions, wars, and changes in the world order have tended to come as a perfect storm. The big cycles of an empire's rise and decline look like those in the chart below. The bad periods of destruction and restructuring via depression, revolution, and war, which largely tear down the old system and set the stage for the emergence of a new system, typically take about 10 to 20 years, though variations in the range can be much larger. They are depicted by the shaded areas in the chart. They are followed by more extended periods of peace and prosperity in which smart people work harmoniously together and no country wants to fight the world power because it's too strong. These peaceful periods last for about 40 to 80 years, though variations in the range can be much larger. Within these cycles are smaller cycles like the short-term debt/business cycle that last about 7 to 10 years.

Reserve Arcs (Conceptual Example)



For example, when the Dutch Empire gave way to the British Empire and when the British Empire gave way to the US Empire, most or all of the following things happened.

End of the Old, Beginning of the New
(e.g., Dutch to British)

- Debt restructuring and debt crisis
- Internal revolution (peaceful or violent) that leads to large transfer of wealth from the "haves" to the "have nots"
- External war
- Big currency breakdown
- New domestic and world order

End of the Old, Beginning of the New
(e.g., British to US)

- Debt restructuring and debt crisis
- Internal revolution (peaceful or violent) that leads to large transfer of wealth from the "haves" to the "have nots"
- External war
- Big currency breakdown
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Where We Are Now

As previously explained, the last major period of destroying and restructuring happened in 1930-45, which led to the new period of building and the new world order that began in 1945 with the creation a new global monetary system (built in 1944 in Bretton Woods, New Hampshire) and a new American-dominated system of world governance (located the United Nations in New York and the World Bank and the International Monetary Fund in Washington, DC). The new American world order was the natural consequence of the US being the richest country (it then had 80% of the world's gold stock and gold was then money), the dominant economic power (it then accounted for about half of world production), and the strongest military power (it then had a monopoly on nuclear weapons and the strongest conventional forces).

It is now 75 years later, and we are classically near the end of a long-term debt cycle when there are large debts and classic monetary policies don't work well for the world's reserve currency central banks. This is happening as we are simultaneously in a deep economic and debt contraction that is producing income and balance sheet holes for people, companies, nonprofit organizations, and governments, while politically fragmented central governments are trying to fill in these holes by giving out a lot of money that they are borrowing. Central banks are helping them do that by monetizing government debt. All this is happening at the same time that there are big wealth and values gaps and there is a rising world power that is competing with the leading world power in trade, technology development, capital markets, and geopolitics. And on top of all this, we have a pandemic to contend with.

At the same time, we have great human capital and thinking technologies that can help us see how to best deal with these challenges and do the inevitable restructurings well. **If we can all deal with each other well**, we will certainly get past this difficult time and move on to a new prosperous period that will be quite different.

In the next chapters of Part 1, I will more closely look into the histories and mechanics of the most important of the 17 drivers and will conclude by attempting to squint into the future.

I will try to pass along pieces of this study to you about once a week until we reach the point of diminishing returns.

Chapter 2:
The Big Cycle of Money, Credit, Debt, and Economic Activity

Chapter 2: The Big Cycle of Money, Credit, Debt, and Economic Activity

Because **what most people and their countries want the most is wealth and power, and because money and credit are the biggest single influence on how wealth and power rise and decline, if you don't understand how money and credit work, you can't understand the biggest driver of politics within and between countries so you can't understand how the world order works. And if you don't understand how the world order works, you can't understand what's coming at you.**

For example, if you don't understand how the Roaring '20s led to a debt bubble and a big wealth gap, and how the bursting of that debt bubble led to the 1930-33 depression, and how the depression and wealth gap led to conflicts over wealth all around the world, you can't understand the forces that led to Franklin D. Roosevelt being elected president. You also wouldn't understand why, soon after his inauguration in 1933, he announced a new plan in which the central government and the Federal Reserve would together provide a lot of money and credit, a change that was similar to things happening in other countries at the same time and similar to what is happening now. Without understanding money and credit, you wouldn't understand why these things changed the world order nor would you understand what happened next (i.e., the war, how it was won and lost, and why the new world order was created as it was in 1945), and you won't be able to understand what is happening now or imagine the future. However, by seeing many of these cases and understanding the mechanics behind them, you will be able to better understand what is happening now and what is likely to happen in the future.

In doing this study, I spoke with several of the world's most renowned historians and political practitioners, including current and former heads of state, foreign ministers, finance ministers, and central bankers. In our explorations of how the world really works, it was clear that we each brought different pieces of the puzzle that made the picture much clearer when we put them together. We agreed that the two most essential understandings to have are of 1) how money, credit, and economics work and 2) how domestic and international politics work. Several told me that the understanding conveyed in this chapter has been the biggest missing piece in their quest to understand the lessons of history and I explained to them how their perspectives helped me better understand the political dynamic that affects economic policy choices. This chapter is focused on the money, credit, and economic piece.

Let's start with the timeless and universal fundamentals of money and credit.

The Timeless and Universal Fundamentals of Money and Credit

All entities—people, companies, nonprofit organizations, and governments—deal with the same basic financial realities, and always have. They have money that comes in (i.e., revenue) and money that goes out (i.e., expenses) which, when netted, makes up their net income. These flows are measured in numbers that can be shown in their income statements. **If one brings in more than one spends, one has a profit that causes one's savings to go up. If one's spending is more than one's earnings, one's savings goes down or one has to make up the difference by borrowing it or taking it from someone else.** The assets and liabilities (i.e., debts) that one has can be shown in one's balance sheet. Whether one writes these numbers out or not, every country, company, nonprofit organization, and person has them. The relationships between each entity's income, expenses, and savings when combined to be the relationships between all **entities' incomes, expenses, and savings transpire in a dynamic way to be the biggest driver of changes in the world order. So, if you can take your understanding of your own income, expenses, and savings, imagine how that applies to others, and put them together, you will see how the whole thing works.**

In brief, if one spends more than one takes in one has to get the money from somewhere, and if one takes in more than one spends one has to put the money one gains somewhere. If one is short of money one can get the money by either drawing down one's saving, borrowing the money, or taking it from someone else. If one has more money than one uses it will either be added to one's savings as an investment or given to someone else. What one's savings looks like—i.e., the assets and the liabilities—shows up in one's balance sheet. If one has many more assets than liabilities (i.e., a large net worth), one can spend above one's income by selling assets until the money runs out, at which point one has to slash one's expenses. If one doesn't have much more in

assets than one has in liabilities and one's income falls beneath the amount one needs to pay out to cover the total of one's operating expenses and one's debt-service expenses, one will have to cut one's expenses or will default/restructure one's debts. Since one person's spending is another person's income, that cutting of expenses will hurt not just the entity that is having to cut those expenses but it will hurt the ones who depend on that spending to earn income. Similarly, since one's debts are another's assets, that defaulting on debts reduces other entities' assets, which requires them to cut their spending. This dynamic produces a self-reinforcing downward debt and economic contraction that becomes a political issue as people argue over how to divide the shrunken pie. As a principle, *debt eats equity*. What I mean by that is that for most systems, when the rules of the game are followed, debts have to be paid above all else so that when one has "equity" ownership—e.g., in one's investment portfolio or in one's house—and one can't service the debt, the asset will be sold or taken away. In other words, the creditor will get paid ahead of the owner of the asset. As a result, when one's income is less than one's expenses and one's assets are less than one's liabilities (i.e., debts), one is on the way to having one's assets sold and going broke.

However, unlike what most people intuitively think, **there isn't a fixed amount of money and credit in existence. Money and credit can easily be created by governments. Their creating it is liked because it gives people, companies, nonprofit organizations, and governments more spending power. Their taking the credit and spending it on goods, services, and investment assets makes most everything go up in price which most people like. The problem is that it creates a lot of debt and paying it back is difficult and painful. That is why money, credit, debt, and economic activity are inherently cyclical. In the credit creation phase, demand for goods, services, and investment assets and the production of them is strong, and in the debt paying back phase it is weak.**

But what if the debts never had to be paid back? Then there would be no debt squeeze and no painful paying back period. But that would be terrible for those that lent to them because they'd lose their money, right? Let's think about that for a moment to see if we can find a way around that problem. Since government (i.e., the central government and the central bank combined) has the abilities to both make and borrow money, why couldn't the central bank lend money at an interest rate of about 0% to the central government (to distribute as it likes) and also lend to others at low rates and allow those debtors to never pay it back. Normally debtors have to pay the original amount borrowed (principal) plus interest in installments over a period of time. But what if the interest rate was 0% and the central bank that lent the money kept rolling over the debt so that the debtor never had to pay it back? That would be the equivalent of giving the debtors the money but it wouldn't look that way because the debt would still be accounted for as an asset that the central bank owns so the central bank can still say it is performing its normal lending functions. Central banks could do that. **In fact that is what is now happening.**

To understand what is now happening and will happen financially to you, to other individuals, to companies, to nonprofit organizations, to governments, and to whole economies, it is important to watch how their income statements and balance sheets are doing and to imagine what will likely happen. Take a moment to think about how this is happening to you and your own financial situation. How much income do you have and will you have in the future relative to your expenses? How much savings do you have, and what's that savings in? Now play things out. If your income fell or disappeared, how long would your savings last? How much risk do you have in the value of the investments in your savings? If your savings fell in value by half how would you be financially? Can you easily sell your assets to get cash to pay your expenses or service your debts? What are your other sources of money, from the government or from elsewhere? These are the most important calculations you can make to assure your economic well-being. Now look at others—other people, businesses, nonprofit organizations, and governments—realizing that the same is true for them. Now see how we are interconnected and what changes in conditions might mean for you and others who might affect you. Since the economy is nothing more than all these entities operating in this way, if you can visualize this well it will help you understand what is happening and what is likely to happen.

As for what is happening now, **the biggest problem that we collectively now have is that for many people, companies, nonprofit organizations, and governments the incomes are low in relation to the expenses, and the debts and other liabilities (such as those for pension, healthcare, and insurance) are very large relative to the value of their assets.** It may not seem that way—in fact it often seems the opposite—because there are many people, companies, nonprofit organizations, and governments that look rich even while they are in the process of going broke. They look rich because they spend a lot, have plenty of assets, and even have plenty of cash. However, if you look carefully you will be able to identify those who look rich but are in financial trouble because they have incomes that are below their expenses and/or liabilities that are greater than their assets so, if you project out what will likely happen to their finances, you will see that they will have to cut their expenses and sell their assets in painful ways that will leave them broke. We each need to do those projections of what the future will look like for our own finances, for others who are relevant to us, and for the world economy.

If anything I said is confusing to you, I urge you to think about it until you get it. So, pencil out what your financial safety margin looks like (how long will you be financially OK if the worst scenario happens—like you lose your job and your investment assets fall to be only half as much to account for possible price falls, taxes, and inflation). Then do that calculation for others, add them up, and then you will have a good picture of the state of the world. I've done that with the help of my partners at Bridgewater and find it invaluable in imagining what is likely to happen. You can read more of my perspective on this in "The Big Picture." In a nutshell, **the liabilities are enormous relative to the net incomes and the asset values that are required to meet those obligations.**

In summary, those basic financial realities work for all people, companies, nonprofit organizations, and governments in the same way they work for you and me, with one big, important exception. All countries can create money and credit out of thin air to give to people to spend or to lend it out. By producing money and giving it to debtors in need, central banks can prevent the debt crisis dynamic that I just explained. For that reason I will modify the prior principle to say *debt eats equity, money feeds the hunger of debt, and central banks can produce money*. So, it should not be surprising that governments print money when there are debt crises that are causing debt to eat more equity and causing more economic pain that is politically acceptable.

However, not all money that governments print is of equal value.

The monies (i.e., currencies) that are widely accepted around the world are called reserve currencies. At this time the world's dominant reserve currency is the US dollar, which is created by the US central bank, which is the Federal Reserve; it accounts for about 55% of all international transactions. A much less important currency is the euro, which is produced by the Eurozone countries' central bank, the European Central Bank; it accounts for about 25% of all international transactions. The Japanese yen, the Chinese renminbi, and the British pound all are relatively small reserve currencies now, though the renminbi is growing quickly in importance.

Having a reserve currency is great while it lasts because it gives the country exceptional borrowing and spending power but also sows the seeds of it ceasing to be a reserve currency, which is a terrible loss. That is because having a reserve currency allows the country to borrow a lot more than it could otherwise borrow which leads it to have too much debt that can't be paid back which requires its central bank to create a lot of money and credit which devalues the currency so nobody wants to hold the reserve currency as a storehold of wealth. Countries that have reserve currencies can produce a lot of money and credit/debt denominated in them, especially when there is a shortage of them such as now. That is what the Fed is now doing. **In contrast countries that don't have reserve currencies** are especially prone to finding themselves in need of these reserve currencies (e.g., dollars) when a) they have a lot of debt that is owed in the reserve currencies that they can't print (e.g., dollars), b) they don't have much savings in those reserve currencies, and c) their ability to earn the currencies they need falls off. **When countries that don't have reserve currencies desperately need reserve currencies to pay their debts that are denominated in reserve currencies and to buy things from sellers who want them to pay in reserve currencies, their inability to get enough reserve currencies to meet those needs can bankrupt them.** That is where things now stand for a number of countries. It is also where things stand for local governments and states and for many of us. For example a number of states, local governments, companies, nonprofit organizations, and people have suffered income losses and don't have much savings relative to their losses. They will have to cut their expenses or get money and credit some other way. Others will get money or very cheap credit that may never have to be paid back from the government. The government, and not the free market, will determine who gets what.

At the time of this writing the income levels of a number of people, companies, nonprofit organizations, and governments have plunged to be below their expense levels by amounts that are large in relation to their net worths so they will be forced either to slash their expenses, which is painful to do now, or to risk running out of their savings and having to default on their debts. Governments that have the power to do so are creating money and credit to give to many but not all of them to help ease the debt burdens and help finance the expenses that are denominated in their own currencies. This configuration of circumstances has happened throughout history and has been handled in the same way so it's easy to see how this machine works. That is what I want to make sure that I convey in this chapter.

Let's start with the real basics and build from there.

What is money?

Money is a medium of exchange that can also be used as a storehold of wealth.

By medium of exchange, I mean that it can be given to someone to buy things. Basically people produce things in order to exchange them with people who have other things that they want. Because carrying around non-money objects in the hope of exchanging them for what one wants (i.e., barter) is inefficient, virtually every society that has ever existed has invented money (also known as currency) to be something portable that everyone agrees is of value so it can be exchanged for what we want.

By a storehold of wealth, I mean a vehicle for storing buying power between acquiring it and spending it. While people can store their wealth in assets that they expect will retain their value or appreciate (such as gold, gems, paintings, real estate, stocks, and bonds), one of the most logical things to store it in has been the money that one will use later. But they actually don't hold the currency because they believe that they can hold something a bit better and always exchange the thing they're holding to get the currency to buy the things they want to buy. That is where credit and debt come into the picture.

When lenders lend, they assume that the money they will receive back will buy more goods and services than if they just held onto the money. If done well, the borrowers used the money productively and earned a profit so that they can pay the lenders back and keep some extra money. When the loan is outstanding it is an asset for the lender (e.g., a bond) and a liability (debt) for the borrower. When the money is paid back, the assets and liabilities disappear, and the exchange is good for both the borrowers and lenders. They essentially split the profits that come from doing this productive lending. It is also good for the whole society, which benefits from the productivity gains that result from this.[7]

So, it's important to realize that **1) most money and credit (especially the fiat money that now exists) has no intrinsic value, 2) it is just journal entries in an accounting system that can easily be changed, 3) the purpose of that system is to help to allocate resources efficiently so that productivity can grow, rewarding both lenders and borrowers, and 4) that system periodically breaks down. As a result, since the beginning of time, all currencies have either been destroyed or devalued.** When currencies are destroyed or devalued that shifts wealth in a big way that sends big reverberations through the economy and markets.

More specifically, rather than working perfectly the money and credit system swings the supplies, demands, and values of money in cycles that in the upswings produce joyful abundance and in the downswings produce painful restructurings. Let's now get into how these cycles work building from the fundamentals up to where we now are.

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7. While borrowers are typically willing to pay interest, which is what gives lenders the incentive to lend it out, nowadays there are some debt assets that have negative interest rates, which is a weird story that we will explore later.

The Fundamentals

While money and credit are associated with wealth, they aren't wealth. Because money and credit can buy wealth (i.e., goods and services) the amount of money and credit one has and the amount of wealth one has look pretty much the same. But one cannot create more wealth simply by creating more money and credit. To create more wealth, one has to be more productive. The relationship between the creation of money and credit and the creation of wealth (actual goods and services) is often confused yet it is the biggest driver of economic cycles, so let's look at this relationship more closely.

There is typically a mutually reinforcing relationship between a) the creation of money and credit and b) the amount of goods, services, and investment assets that are produced so it's easy to get them confused. Think of it this way. There is both a real economy and a financial economy. Though they are related, they are different. Each has their own supply and demand factors that drive them. For example, in the real economy, when the level of goods and services demanded is strong and rising and the capacity to produce those things demanded is limited, the real economy's capacity to grow is limited and, if demand keeps rising faster than the capacity to produce, inflation rises. In that example inflation rises because of what is happening in the real economy. Knowing that, central banks normally tighten money and credit at such times to slow the demand. That is an example of something that is happening in the financial economy affecting what's happening in the real economy. During normal times, which is through most of the long-term debt cycle, central banks turn on and turn off credit, which raises and lowers demand and production. Because they do that imperfectly we have the short-term debt cycles, which we also call overheated economies and recessions. In the financial economy, normally money and credit are created by central banks and flow into financial assets, which produces lending that finances people's borrowing and spending with the private credit system allocating that money and credit. How financial assets are produced by the government through fiscal and monetary policy has a huge effect on who gets the money and credit and the buying power that goes along with it, which also determines what it's spent on. For example you now see governments atypically giving money, credit, and buying power to those they want to get it to rather than it being allocated by the marketplace, so you are see capitalism as we know it being suspended.

Then of course **there is the value of money and credit to consider. It is based on its own supply and demand.** For example, when a lot of it is created relative to the demand for it, declines in its value will occur. Where it flows to is important in determining what happens. For example, when the money and credit that central banks are creating no longer go into lending that fuels increases in economic demand and instead go into other currencies and inflation-hedge assets, it fails to stimulate economic activity and instead causes the value of the currency to decline and the value of inflation-hedge assets to rise. At such times high inflation can occur because the supply of money and credit has increased relative to the demand for it, which we call monetary inflation. That can happen at the same time as there is weak demand for goods and services and the selling of assets so that the real economy is experiencing deflation. That is how inflationary depressions come about. For these reasons **to understand what is likely to happen financially and economically one has to watch movements in the supplies and demands of both the real economy and the financial economy.**

Similarly confused is the relationship between the prices of things and the value of things. Because they tend to go together they can be confused as being the same thing. They tend to go together because when people have more money and credit they are more inclined to spend more and can spend more. In other words, if you give people more money and credit they will feel richer and spend more on goods and services. To the extent that spending increases economic production and raises the prices of goods, services, and financial assets, it can be said to increase wealth, because the people who own those assets become "richer" when measured by the way we account for wealth. However, that increase in wealth is more an illusion than a reality for two reasons: 1) the increased credit that pushes prices and production up has to be paid back, which, all things being equal, will have the opposite effect when it has to be paid back and 2) the intrinsic value of things doesn't increase just because their prices go up. Think about it this way: if you own a house and the government creates a lot of money and credit and the price of your house goes up you will still own the same house—i.e., your actual wealth hasn't increased; just your calculated wealth has increased. Similarly, if the government creates a lot of money and credit that is used to buy goods, services, and investment assets (e.g., stocks, bonds, and real estate) which go up in price, the amount of calculated wealth goes up but the amount of actual wealth hasn't gone up because you own the exact same thing as you did before it was considered worth more. In other words, **using market values of what one owns to measure one's wealth gives an illusion of changes in wealth that doesn't really exist.** As far as how the economic machine works, the big thing is that **money and credit is stimulative when it's given out and depressing when it has to be paid back. That's what normally makes money, credit, and economic growth so cyclical.**

The people who control money and credit (i.e., central banks) vary the costs and availability of money and credit to control markets and the economy as a whole. When the economy is growing too quickly and they want to slow it down, they make less money and credit available, causing both to become more expensive. This encourages people to lend rather than to borrow and spend. When there is too little growth and central bankers want to stimulate the economy, they make money and credit cheap and plentiful, which encourages people to borrow and invest and/or spend. These variations in the cost and availability of money and credit also cause the prices and quantities of goods, services, and investment assets to rise and fall. But banks can only control the economy within their capacities to produce money and credit growth, and their capacities to do that are limited.

Think of the central bank as having a bottle of stimulant that they can inject into the economy as needed with the amount of stimulant in the bottle being limited. When the markets and the economy sag they give them shots of the money and credit stimulant to pick them up, and when they're too hot they give them less stimulant. These moves lead to cyclical rises and declines in the amounts and prices of money and credit, and of goods, services, and financial assets. These moves typically come in the form of short-term debt cycles and long-term debt cycles. The short-term cycles of ups and downs typically last about eight years, give or take a few. The timing is determined by the amount of time it takes the stimulant to raise demand to the point that it reaches the limits of the real economy's capacity to produce. Most people have seen enough of these short-term debt cycles to know what they are like—so much so that they mistakenly think that they will go on working this way forever. They're most popularly called "the business cycle," though I call them "the short-term debt cycle" to distinguish them from "the long-term debt cycle." **Over long periods of time these short-term debt cycles add up to long-term debt cycles that typically last about 50 to 75 years.[8]** Because they come along about once in a lifetime most people aren't aware of them; as a result they typically take people by surprise, which hurts a lot of people. **The last big long-term debt cycle, which is the one that we are now in, was designed in 1944 in Bretton Woods, New Hampshire, and was put in place in 1945 when World War II ended and we began the dollar/US-dominated world order.**

These **long-term debt cycles start when debts are low after previously existing excess debts have been restructured in a way so that central banks have a lot of stimulant in the bottle, and they end when debts are high and central banks don't have much stimulant left in the bottle. More specifically, the ability of central banks to be stimulative ends when the central bank loses its ability to produce money and credit growth that pass through the economic system to produce real economic growth. That lost ability of central bankers typically takes place when debt levels are high, interest rates can't be adequately lowered, and the creation of money and credit increases financial asset prices more than it increases actual economic activity. At such times those who are holding the debt (which is someone else's promise to give them currency) typically want to exchange the currency debt they are holding for other storeholds of wealth. When it is widely perceived that the money and the debt assets that are promises to receive money are not good storeholds of wealth, the long-term debt cycle is at its end, and a restructuring of the monetary system has to occur. In other words the long-term debt cycle runs from 1) low debt and debt burdens (which gives those who control money and credit growth plenty of capacity to create debt and with it to create buying power for borrowers and a high likelihood that the lender who is holding debt assets will get repaid with good real returns) to 2) high debt and debt burdens with little capacity to create buying power for borrowers and a low likelihood that the lender will be repaid with good returns. At the end of the long-term debt cycle there is essentially no more stimulant in the bottle (i.e., no more ability of central bankers to extend the debt cycle) so there needs to be a debt restructuring or debt devaluation to reduce the debt**

8. By the way, please understand that these rough estimates of cycle times are just rough estimates, and to know where we are in these cycles we need to look more at the conditions than the amount of time.

burdens and start this cycle over again. Throughout history central governments and central banks have created money and credit which weakened their own currencies and raised their levels of monetary inflation to offset the deflation that comes from the deflationary credit and economic contractions.

Since these cycles are big deals and have happened virtually everywhere for as long as there has been recorded history, we need to understand them and have timeless and universal principles for dealing with them well. However, these long-term debt cycles take about a lifetime to transpire, unlike the short-term debt cycles that we all experience a number of times in our lifetimes so most people understand better. When it comes to the long-term debt cycle most people, including most economists, don't recognize or acknowledge its existence because, to see a number of them in order to understand the mechanics of how they work, one has to look at them operating in a number of countries over many hundreds of years in order to get a good sample size. In Part 2 of this study we will look at all of the most important cycles with reference to the timeless and universal mechanics of why money and credit have worked and failed to work as mediums of exchange and storeholds of wealth. In this chapter, we will look at how they archetypically work.

I will start with the basics of the long-term debt cycle from way back when and bring you up to the present, giving you a classic template. To repeat, while I'm saying that this is a classic template I'm not saying that all cases transpire exactly like this, though I am saying that almost all follow this pattern closely.

The Long-Term Debt Cycle

Let's start with the basics.

1) It Begins with No or Low Debt and "Hard Money"

When societies first invented money they used all sorts of things, like grain and beads. But mostly they used things that had intrinsic value, like gold, silver, and copper. Let's call that "hard money."

Gold and silver (and sometimes copper and other metals like nickel) were the preferred forms of money because 1) they had intrinsic value and 2) they could easily be shaped and sized to be to portable so they could easily be exchanged. Having intrinsic value (i.e., being useful in and of themselves) was important because no trust—or credit—was required to carry out an exchange with them. Any transaction could be settled on the spot, even if the buyer and seller were strangers or enemies. There is an old saying that "gold is the only financial asset that isn't someone else's liability." That is because it has widely accepted intrinsic value, unlike debt assets or other assets that require an enforceable contract or a law to ensure the other side will deliver on its promise to deliver whatever it promised to deliver (which when it's just "paper" currency that can easily be printed isn't much of a promise). On the other hand, if during such a period of lack of trust and enforceability one receives gold coins from a buyer, that doesn't have a credit component to it—i.e., you could melt them down and still receive almost the same amount of value because of its intrinsic value—so the transaction can happen without the same sort of risks and lingering promises that need to be kept. When countries were at war and there was not trust in the intentions or abilities to pay, they could still pay in gold. So gold (and to a lesser extent silver) could be used as both a safe medium of exchange and a safe storehold of wealth.

2) Then Come Claims on "Hard Money" (aka, "Notes" or "Paper Money")

Because carrying a lot of metal money around was risky and inconvenient, **credible parties (which came to be known as banks, though they initially included all sorts of institutions that people trusted, such as temples in China) arose that would put the money in a safe place and issue paper claims on it. Soon people treated these paper "claims on money" as if they were money themselves.** After all, they were as good as money because they could be redeemed for tangible money. This type of currency system is called a linked currency system because the value of the currency is linked to the value of something, typically a "hard money" such as gold.

3) Then Comes Increased Debt

At first there is the same number of claims on the "hard money" as there is hard money in the bank. However, the holders of the paper claims and the banks discover the wonders of credit and debt. They can lend these paper claims to the bank in exchange for an interest payment so they get interest. The banks that borrow it from them like it because they lend the money to others who pay a higher interest rate so the banks make a profit. And those who borrow the money from the bank like it because it gives them buying power that they didn't have. And the whole society likes it because it leads asset prices and production to rise. Since everyone is happy with how things are going they do a lot of it. More lending and borrowing happens over and over again many times, there is a boom, and the quantity of the claims on the money (i.e., debt assets) rises relative to the amount of actual goods and services there are to buy. Trouble approaches either when there isn't enough income to survive one's debts or when the amount of the claims (i.e., debt assets) that people are holding in the expectation that they can sell them to get money to buy goods and services increases faster than the amount of goods and services by an amount that makes the conversion from that debt asset (e.g., that bond) implausible. These two problems tend to come together.

Concerning the first of these problems, think of debt as negative earnings and a negative asset that eats up earnings (because earnings have to go to pay it) and eats up other assets (because other assets have to be sold to get the money to pay the debt). It is senior—meaning it gets paid before any other type of asset—so when incomes and the values of one's assets fall, there is a need to cut expenditures and sell off assets to raise the needed cash. When that's not enough, there needs to be a) debt restructurings in which debts and debt burdens are reduced, which is problematic for both the debtor and the creditor because one person's debts are another's assets and/or the b) central bank printing money and the central government handing out money and credit to fill in the holes in incomes and balance sheets (which is what is happening now).

Concerning the second of these problems, it occurs when holders of debt don't believe that they are going to get adequate returns from it. Debt assets (e.g., bonds) are held by investors who believe that they are storeholds of wealth that can be sold to get money, which can be used to buy things. When the holders of debt assets try to make the conversion to real money and real goods and services and find out that they can't, this problem surfaces. Then a "run" occurs, by which I mean that lots of holders of that debt want to make that conversion to money, goods, services, and other financial assets. The bank, regardless of whether it is a private bank or a central bank, is then faced with the choice to allow that flow of money out of the debt asset, which will raise interest rates and cause the debt and economic problems to worsen, or to "print money" and buy enough of those bonds that others are selling to prevent interest rates from rising and hopefully reverse the run out of them. Sometimes their doing that buying works temporarily, but if the ratio of a) claims on money (debt assets) to b) the amount of money there is and the quantity of goods and services there are to buy is too high, the bank is in a bind that it can't get out of because it simply doesn't have enough money to meet the claims so it will have to default on its claims. When that happens to a central bank it has the choice either to default or to print the money and devalue it. They inevitably devalue. When these debt restructurings and currency devaluations are big they lead to breakdowns and possibly destructions of the monetary system. Whatever the bank or the central bank does, the more debt (i.e., claims on money and claims on goods and services) there is, the more the likelihood that it will be necessary to devalue the money.

Remember that there is always a limited amount of goods and services because the amount is constrained by the ability to produce. Also remember that in our example of paper money being claims on "hard money," there is a limited amount of that "hard money" (e.g., the gold on deposit), while the amount of paper money (e.g., the claims on that hard money) and debt (the claims on that paper money) is constantly growing. And, as that amount of paper money claims grows relative to the amount of hard money in the bank and goods and services in the economy, the risk increases that the holders of those debt assets may not be able to redeem them for the amounts of hard money or goods and services that they expect to be able to exchange them for.

It is important to understand the difference between money and debt. Money is what settles claims—i.e., one pays one's bills and one is done. Debt is a promise to deliver money. In watching how the machine is working it is important to watch a) the amounts of both debt and money that exist relative to the amount of hard money (e.g., gold) in the bank and b) the amounts of goods and services that exist, which can vary, remembering that debt cycles happen because most people love to expand their buying power (generally through debt) while central banks tend to want to expand the amount of money in existence because people are happier when they do that. But this can't go on forever. And it is important to remember that the "leveraging up" phase of the money and debt cycle ends when bankers—whether private bankers or central bankers—create a lot more certificates (paper money and debt) than there is hard money in the bank to give and the inevitable day comes when more certificates are turned in than there is money to give. Let's look at how that happens.

4) Then Come Debt Crises, Defaults, and Devaluations

History has shown that when the bank's claims on money grow faster than the amount of money in the bank—whether the bank is a private bank or government-controlled (i.e., central bank)—eventually the demands for the money will become greater than the money the bank can provide and the bank will default on its obligations. That is what is called a bank run. One can quite literally tell when a bank run is happening and a banking crisis is imminent by watching the amounts of money in banks (whether "hard" or paper) decline and approach the point of running out due to withdrawals.

A bank that can't deliver enough hard money to meet the claims that are being made on it is in trouble whether it is a private or a central bank, though central banks have more options than private banks do. That's because a private bank can't simply print the money or change the laws to make it easier to pay their debts, while a central bank can. **Private bankers must either default or get bailed out by the government when they get into trouble, while central bankers can devalue their claims (e.g., pay back 50-70%) if their debts are denominated in their national currency. If the debt is denominated in a currency that they can't print, then they too must ultimately default.**

5) Then Comes Fiat Money

Central banks want to stretch the money and credit cycle to make it last for as long as they can because that is so much better than the alternative, so, when "hard money" and "claims on hard money" become too painfully constrictive, governments typically abandon them in favor of what is called "fiat" money. No hard money is involved in fiat systems; there is just "paper money" that the central bank can "print" without restriction. As a result, there is no risk that the central bank will have its stash of "hard money" drawn down and have to default on its promises to deliver it. Rather the risk is that, freed from the constraints on the supply of tangible gold or some other "hard" asset, the people who control the printing presses (i.e., the central bankers working with the commercial bankers) will create ever more money and debt assets and liabilities in relation to the amount of goods and services being produced until a time when those who are holding the enormous amount of debt will try to turn them in for goods and services which will have the same effect as a run on a bank and result in either debt defaults or the devaluation of money. That shift from a) a system in which the debt notes are convertible to a tangible asset (e.g., gold) at a fixed rate to b) a fiat monetary system in which there is no such convertibility last happened in 1971. When that happened—on the evening of August 15, when President Nixon spoke to the nation and told the world that the dollar would no longer be tied to gold—I watched that on TV and thought, "Oh my God, the monetary system as we know it is ending," and it was. I was clerking on the floor of the New York Stock Exchange at the time, and that Monday morning I went on the floor expecting pandemonium with stocks falling and found pandemonium with stocks rising. Because I had never seen a devaluation before I didn't understand how they worked. Then I looked into history and found that on Sunday evening March 5, 1933, President Franklin Roosevelt gave essentially the same speech doing essentially the same thing which yielded essentially the same result over the following months (a devaluation, a big stock market rally, and big gains in the gold price), and I saw that that happened many times before in many countries, including essentially the same proclamations by the heads of state.

In the years leading up to 1971 the US government spent a lot of money on military and social programs then referred to as "guns and butter" policy, which it paid for by borrowing money that created debt. The debt was a claim on money that could be turned in for gold. The investors bought this debt as assets because they got paid interest on this government debt and because the US government promised that it would allow the holders of these notes to exchange them for the gold that was held in the gold vaults in the US. As the spending and budget deficits in the US grew the US had to issue much more debt—i.e., create many more claims on gold—even though the amount of gold in the bank didn't go up. Naturally more investors turned in their promises to get the gold for the claims on the gold. People who were astute enough to pay attention could see that the US was running out of gold and the amount of outstanding claims on gold was much larger than the amount of gold in the bank, so they realized that if this continued the US would default. Of course the idea that the United States government, the richest and most powerful government in the world, would default on its promise to give those who had claims on gold the gold it promised to give them seemed implausible at the time. So, while most people were surprised at the announcement and the effects on the markets, those who understood the mechanics of how money and credit work were not.

When credit cycles reach their limit it is both the logical and the classic response for central governments and their central banks to create a lot of debt and print money that will be spent on goods, services, and investment assets to keep the economy moving. That is what was done during the 2008 debt crisis, when interest rates could no longer be lowered because they had already hit 0%. As explained that was also done in response to the 1929-32 debt crisis, when interest rates had been driven to 0%. This creating of the debt and money is now happening in amounts that are greater than at any time since World War II.

To be clear, central banks' "printing money" and giving it out for spending rather than supporting spending with debt growth is not without its benefits—e.g., money spends like credit, but in practice (rather than in theory) it doesn't have to be paid back. In other words, there is nothing wrong with having an increase in money growth instead of an increase in credit/debt growth, provided that the money is put to productive use. The main risks of printing money rather than facilitating credit growth are a) market participants will fail to carefully analyze whether the money is being put to productive use and b) it eliminates the need to have the money paid back. Both increase the chances that money will be printed too aggressively and not used productively so people will stop using it as a storehold of wealth and will shift their wealth into other things. Throughout history, when the outstanding claims on hard money (debt and money certificates) are far greater than there is hard money and goods and services, a lot of defaults or a lot of printing of money and devaluing have always happened.

History has shown us that **we shouldn't rely on governments to protect us financially.** On the contrary, we should expect most governments to abuse their privileged positions as the creators and users of money and credit for the same reasons that you might do these abuses if you were in their shoes. That is because no one policy maker owns the whole cycle. Each one comes in at one or another part of it and does what is in their interest to do at that time given their circumstances at the time.

Because early in the debt cycle governments are considered trustworthy and they need and want money as much or more than anyone else, they are typically the biggest borrowers. Later in the cycle, when successive leaders come in to run the more indebted governments the new government leaders and the new central bankers have to face the greater challenge of paying back debts when they have less stimulant in the bottle. To make matters worse, governments also have to bail out debtors whose failures would hurt the system. As a result, they tend to get themselves into big cash flow jams that are much larger than those of individuals, companies, and most other entities.

In other words, in virtually all cases the government contributes to the accumulation of debt in its actions and by becoming a large debtor and, when the debt bubble bursts, bails itself and others out by printing money and devaluing it. The larger the debt crisis, the more that is true. While undesirable, it is understandable why this happens. **When you can manufacture money and credit and pass it out to everyone to make them happy, it is very hard to resist the temptation to do so.[9]** It is a classic financial move. **Throughout history, rulers have run up debts that won't come due until long after their reign is over, leaving it to their successors to pick up the pieces.**

How do governments react when they have debt problems? They do what any practical, heavily indebted entity with promises to give money that they can print would do. Without exception, they print money and devalue it if the debt is in their own currency. When central banks print money and buy up debt that puts money into the financial system and bids up the prices of financial assets (which also widens the wealth gap because it helps those with the financial assets that are bid up relative to those who don't have financial assets). It also puts a lot of debt in the hands of the central bank, which allows the central bank to handle the debts however they see fit. Also their printing of the money and buying the financial assets (mostly bonds) holds interest rates down, which stimulates borrowing and buying and encourages those holding these bonds to sell them and encourages the borrowing of money at low interest rates to invest it in higher-returning assets, which leads to central banks printing more money and buying more bonds and sometimes other financial assets. That typically does a good job of pushing up financial asset prices but is relatively inefficient in getting money and credit and buying power into the hands of those who need it most. That is what happened in 2008 and has happened for most of the time since until just recently. Then, when the printing of money and the central bank's buying up of financial assets fails to get money and credit to where it needs to go, the central government—which can decide what to spend money on—borrows money from the central bank (which prints it) so it can spend it on what it needs to be spent on. In the US the Fed announced this plan on April 9, 2020. This approach of printing money to buy debt (called debt monetization) is vastly more politically palatable as a way of getting money and shifting wealth from those who have it to those who need it than imposing taxes, which leads taxed people to get angry. That is why **in the end central banks always print money and devalue.**

When governments print a lot of money and buy a lot of debt so the amounts of both money and debt increase, they cheapen money and debt, which essentially taxes those who own it to make it easier for debtors and borrowers. When this happens enough that the holders of this money and debt assets realize what is happening, they seek to sell their debt assets and/or borrow money to get into debt that they can pay back with cheap money. They also often move their wealth to other storeholds of wealth like gold, certain types of stocks, and/or somewhere else (like another country that is not having these problems). At such times central banks have typically continued to print money and buy debt directly or indirectly (e.g., by having banks do the buying for them) and have outlawed the flow of money into inflation-hedge assets and alternative currencies and alternative places.

Such periods of reflation either stimulate another money and credit expansion that finances another economic expansion (which is good for stocks) or devalue money so that it produces monetary inflation (which is good for inflation-hedge assets such as gold). Earlier in the long-term debt cycle when the amounts of outstanding debts aren't large and when there is lots of room to stimulate by lowering interest rates (and failing that, printing money and buying financial assets), the greater the likelihood that credit growth and economic growth will be good, while later in the long-term debt cycle when the amounts of debt are large and when there isn't much room to stimulate by lowering interest rates (or printing money and buying financial assets) the greater the likelihood that there will be a monetary inflation accompanied by economic weakness.

9 Some central banks have made this harder by separating themselves from the direct control of politicians, but virtually every central bank has to bail out their governments at some point, so devaluations always happen.

6) Then Comes the Flight Back into Hard Money

When taken too far, the over-printing of fiat currency leads to the selling of debt assets and the earlier-described bank "run" dynamic, which ultimately reduces the value of money and credit, which prompts people to flee out of both the currency and the debt (e.g., bonds). They need to decide what alternative storehold of wealth they will use. History teaches us that they typically turn to gold, other currencies, assets in other countries not having these problems, and stocks that retain their real value. Some people think that there needs to be an alternative reserve currency to go to, but that's not true as the same dynamic of the breakdown of the monetary system and the running to other assets happened in cases in which there was no alternative currency to go to (e.g., in China and in the Roman Empire). The debasement of the currency leads it to devalue and have people run from it and debt denominated in it into something else. There is a whole litany of things people run to when money is devalued, including rocks (used for construction) in Germany's Weimar Republic.

Typically at this stage in the debt cycle there is also economic stress caused by large wealth and values gaps, which lead to higher taxes and fighting between the rich and the poor, which also makes those with wealth want to move to hard assets and other currencies and other countries. Naturally those who are governing the countries that are suffering from this flight from their debt, their currency, and their country want to stop it. So, at such times, governments make it harder to invest in assets like gold (e.g., via outlawing gold transactions and ownership), foreign currencies (via eliminating the ability to transact in them), and foreign countries (via establishing foreign exchange controls to prevent the money from leaving the country). Eventually the debt is largely wiped out, usually by making the money to pay it back plentiful and cheap, which devalues both the money and the debt.

When this becomes extreme so that the money and credit system breaks down and debts have been devalued and/or defaulted on, necessity generally compels governments to go back to some form of hard currency to rebuild people's faith in the value of money as a storehold of wealth so that credit growth can resume. Quite often, though not always, the government links its money to some hard money (e.g., gold or a hard reserve currency) with promises to allow holders of the new money to make that conversion to the hard money. Sometimes that hard money is another country's. For example, over the past decades many weak-currency countries have linked their money to the US dollar or simply dollarized their economy (i.e., used the dollar as their own medium of exchange and storehold of wealth).

To review, **in the long-term debt cycle, holding debt as an asset that provides interest is typically rewarding early in the cycle when there isn't a lot of debt outstanding, but holding debt late in the cycle when there is a lot of it outstanding and it is closer to being defaulted on or devalued is risky relative to the interest rate being given.** So, holding debt (e.g., bonds) is a bit like holding a ticking time bomb that rewards you while it's still ticking and blows you up when it goes off. And as we've seen, that big blowup (i.e., big default or big devaluation) happens something like once every 50 to 75 years.

These cycles of debt and writing off debts have existed for thousands of years and in some cases have been institutionalized. For example, the Old Testament provided for a year of Jubilee every 50 years, in which debts were forgiven (Leviticus 25:8-13). Knowing that the debt cycle would happen on that schedule allowed everyone to act in a rational way in preparation for it. Helping you understand this dynamic so that you are prepared for it rather than are surprised by it is the main objective behind my writing this.

Because most people don't pay attention to this cycle much in relation to what they are experiencing, ironically **the closer people are to the blowup the safer they tend to feel.** That is because they have held the debt and enjoyed the rewards of doing that and the longer it has been from the time since the last one blew up, the more comfortable they have become as the memories of the last blowup fade—even as the risks of holding this debt rise and the rewards of holding it decline. By keeping an eye on the amount of debt that needs to be paid relative to the amount of hard money that there is to pay it, the amount of debt payments that have to be made relative to the amount of cash flow the debtors have to service the debt, and the interest rewards that one is getting for lending one's money, one can assess the risk/reward of holding the time bomb.

The Long-Term Debt Cycle in Summary

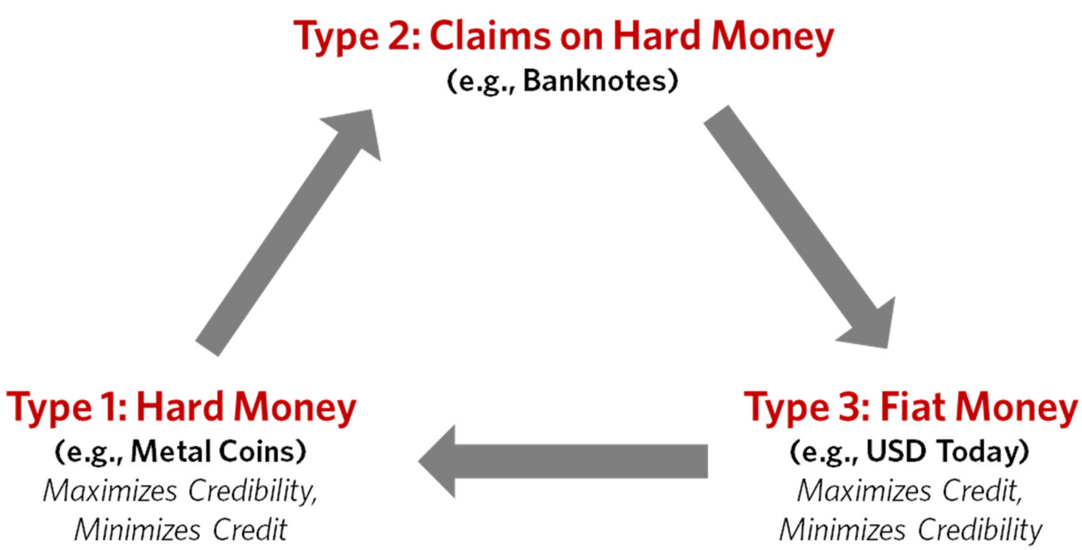
<u>For thousands of years there have always been three types of monetary system:</u>

- **<u>Hard Money (e.g., metal coins)</u>**
- **<u>"Paper Money" claims on hard money</u>**
- **<u>Fiat Money (e.g., the US dollar today)</u>**

Hard money is the most restrictive system because money can't be created unless the supply of the metal or other intrinsically valuable commodity that is the money is increased. Money and credit are more easily created in the second type of system, so the ratio of the claims on hard money to the actual hard money held rises, which eventually leads to a "run" on the banks. The result is a) defaults, when the bank closes its doors and the depositors lose their hard assets and/or b) devaluations of the claims on money, which means that the depositors get back less. In the third type of system, governments can create money and credit freely, which works for as long as people continue to have confidence in the currency and fails when they don't.

Throughout history, countries have transitioned across these different types of systems for logical reasons. As a country needs more money and credit than it currently has, whether to deal with debts, wars, or other problems, it naturally moves from Type 1 to Type 2, or Type 2 to Type 3, so that it has more flexibility to print money. Then creating too much money and debt depreciates its value, causing people to get out of holding the debt and money as a storehold of wealth, and moving back into hard assets (like gold) and other currencies. Since this typically takes place when there is wealth conflict and sometimes a war, there is typically also a desire to get out of the country. Such countries need to re-establish confidence in the currency as a storehold of wealth before they can restore their credit markets.

The below diagram conveys these different transitions. There are many historical examples, from the Song Dynasty to Weimar Germany, of countries making the full transition from constrained types (Type 1 and Type 2) to fiat money, then back to a constrained currency as the old fiat currency hyperinflates.



As noted earlier this big debt cycle plays out over the long term—something like 50 to 75 years—and, at its end, is characterized by a restructuring of debts and of the monetary system. The abrupt parts of these restructurings—i.e., the debt and currency crisis periods—typically happen quickly, lasting only months to up to three years, depending on how long it takes the governments to exercise these moves. However, the ripple effects of them can be long-lasting. For example, these circumstances can lead to reserve currencies stopping being reserve currencies. Within each of these currency regimes there are typically two to four big debt crises—i.e., big enough to cause banking crises and debt write-downs or devaluations of 30% or more—but not big enough to break the currency system. Because I have invested in many countries for about 50 years I have experienced dozens of them. They all run the same way, which is explained in greater depth in my book *Principles for Navigating Big Debt Crises*.

The Monetary System That We Are in, from Its Beginning until Now

The dollar became the world's leading reserve currency when the United States became the world's strongest economic and military power at the end of World War II. Since then having the world's leading reserve currency has been critical to the United States sustaining and extending its power. That is because a great power comes from being able to create money and credit in the currency that is widely accepted around the world as a medium of exchange and a storehold of wealth. As a result of having the ability to print the world's currency the United States' relative financial economic power is multiple times the size of its real economic power.

At the risk of boring you by repeating some of the things I already told you, **I will now review the US case and the circumstances that led to the US and the dollar putting the world in the position that we are now in.**

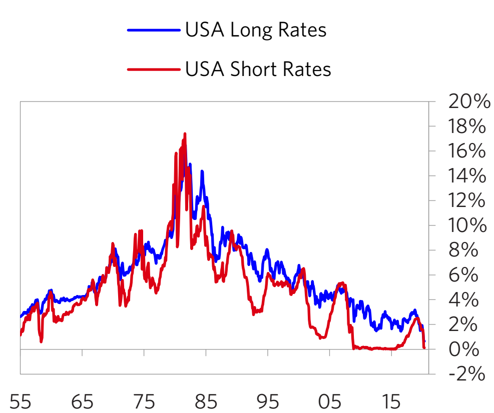
In brief, the new world order began after the end of World War II in 1945, with the Bretton Woods agreement having put the dollar in the position of being the world's leading reserve currency in 1944. The US and the dollar naturally fit into that role because at the end of the war, the US had around two-thirds of the world's gold held by governments (which was the world's money at the time), accounted for 50% of the world's economic production, and was the dominant military power. **The new monetary system was a Type 2 (i.e., claims on hard money) monetary system, in which "paper dollar" claims on gold could be exchanged by other countries' central banks for an ounce of gold at a price of $35/ounce.** It was then illegal for individuals to own gold because government leaders didn't want gold to compete with money and credit as a storehold of wealth. So, at the time, gold was the money in the bank and the paper dollars were like checks in a checkbook that could be turned in for the real money. At the time of the establishment of this new monetary system there was $50 of paper money in existence for each ounce of gold the US government owned, so there was nearly 100% gold backing. Other major countries that were US allies (e.g., the UK, France, and the Commonwealth countries) or under US control (Germany, Japan, and Italy) had US-controlled currencies that were linked to the dollar. In the years that followed, to finance its activities, **the US government spent more than it took in in tax revenue so it had to borrow money, which created more dollar-denominated debt. The US Federal Reserve allowed the creation of a lot more claims on gold (i.e., dollar-denominated money and credit) than could actually be converted into gold at that $35 price.** As the paper money was turned in for the hard money (gold), **the quantity of gold in the US bank went down at the same time as the claims on it continued to rise. As a result, the Bretton Woods monetary system broke down on August 15, 1971 when President Nixon, like President Roosevelt on March 5, 1933, defaulted on the US's promise to allow holders of paper dollars to turn them in for gold. Thus the dollar devalued against gold and other currencies. That is when the US and all countries went to a Type 3 fiat monetary system.** If you want to read a great description of this process of figuring out how to go from the old monetary system to the new fiat one, I recommend *Changing Fortunes* by Paul Volcker, who was the leading American negotiator of how the new monetary system would work.

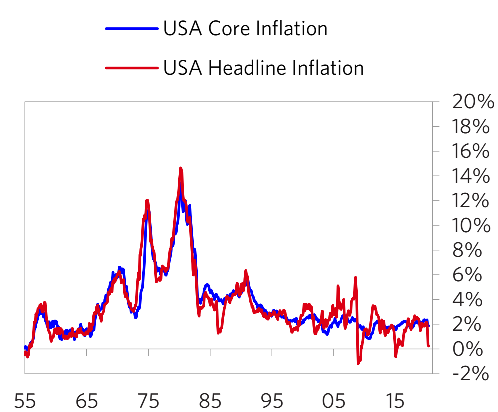
This move to a fiat monetary system freed the Federal Reserve and other central banks to create a lot of dollar-denominated money and credit, which led to the inflationary 1970s, which was characterized by a flight from dollars and dollar-denominated debt to goods, services, and inflation-hedge assets such as gold. That panic out of dollar debt also led interest rates to rise and drove the gold price from the $35 that it was fixed at in 1944 and officially stayed at until 1971 to a then-peak of $670 in 1980.

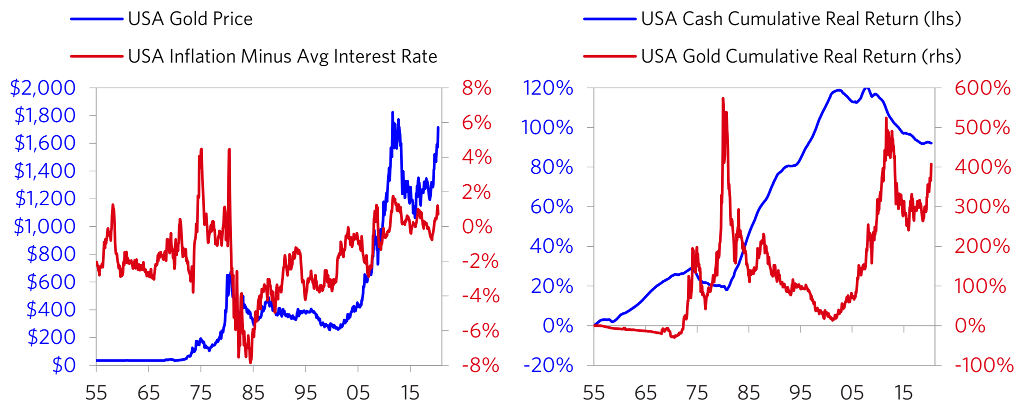
With the money and credit managed this way in the 1970s it was profitable to borrow dollars and convert them into goods and services, so many entities in many countries borrowed dollars largely through US banks to do that. As a result, dollar-denominated debt grew rapidly around the world, and US banks made a lot of money lending it to these borrowers. This lending led to the classic debt bubble part of the debt cycle. **The panic out of dollars and dollar-debt assets and into inflation-hedge assets, as well as the rapid borrowing of dollars and the getting into debt, accelerated. That created the money and credit crisis of 1979-82, during which time the US dollar and dollar-denominated debt were at risk of ceasing to be an accepted storehold of wealth.** Of course, the average citizen didn't understand how this money and credit dynamic worked, but they felt it in the form of high inflation and high interest rates, so it was a huge political issue. President Carter, who like most political leaders didn't understand the monetary mechanics very well, knew that something had to be done to stop it and appointed a strong monetary policy maker, Paul Volcker. Just about everyone who followed such things, including me, hung on his every word. He was strong enough to do the painful but right things needed to break the back of inflation. He became a hero of mine and eventually a good personal friend because of his great character and great capabilities, and I loved his wry humor too.

To deal with that monetary inflation crisis and to break the back of inflation, Volcker tightened the supply of money, which drove interest rates to the highest level "since Jesus Christ," according to German Chancellor Helmut Schmidt. **Because the interest rate was far above the inflation rate debtors had to pay much more in debt service at the same time as their incomes and assets fell in value. That squeezed the debtors and required them to sell assets.** Because of the great need for dollars, the dollar was strong. **For these reasons, inflation rates fell, which allowed the Federal Reserve to lower interest rates and to ease money and credit for Americans. Of course many debtors and holders of these assets that were falling in value went broke. So in the 1980s these debtors, especially foreign debtors and more especially those in emerging countries, went through a decade-long depression and debt-restructuring period.** The Federal Reserve protected the American banks by providing them with the money they needed, and the American accounting system protected them from going broke by not requiring them to account for these bad debts as losses or value these debt assets at realistic prices. This debt management and restructuring process lasted until 1991, when it was completed through the Brady Bond agreement, named after Nicholas Brady who was the US Secretary of Treasury at the time. **This whole 1971-91 cycle, which affected just about everyone in the world, was the result of the US going off the gold standard. It led to the soaring of inflation and inflation-hedge assets in the 1970s, which led to the 1979-81 tightening and a lot of deflationary debt restructuring by non-American debtors, falling inflation rates, and excellent performance of bonds and other deflationary assets in the 1980s.** The entire period was a forceful demonstration of the power of the US having the world's reserve currency—and the implications for everyone around the world of how that currency was managed.

From that 1979-81 peak in dollar-denominated inflation and dollar-denominated interest rates until now, both the inflation rates and interest rates have fallen to nearly 0%. You can clearly see that whole big cycle up and down in interest rates and inflation rates since the new dollar-denominated monetary system.







After the 1980s debt restructurings were completed the 1990s saw a new global increase in money, credit, and debt begin again, which again produced a prosperity that led to debt-financed purchases of speculative investments that became the dot-com bubble, which burst in 2000. That led to an economic downturn in 2000-01 that spurred the Federal Reserve to ease money and credit, which pushed debt levels to new highs and created another prosperity that turned into another and bigger debt bubble in 2007, which burst in 2008, which led the Fed and other reserve currency countries' central banks to ease again, leading to the next bubble that just recently burst. So, between the 1980s debt restructuring and 2008 there were two fairly typical debt/economic cycles. However, **the credit/economic contraction of 2008 needed to be handled differently**.

Because short-term interest rates hit 0% in 2008 and that amount of interest rate decline wasn't enough to create the money and credit expansion that was needed, central banks needed to print money and buy financial assets. Stimulating money and credit growth by lowering interest rates is the first-choice monetary policy of central banks. I call it "Monetary Policy 1." With this approach no longer available to central banks, they **turned to the second-choice monetary policy (which I call "Monetary Policy 2"), which is the printing of money and the buying of financial assets**, mostly government bonds and some high-quality debt. The last time they had needed to do that because interest rates had hit 0% began in 1933 and continued through the war years. This approach is called "quantitative easing" rather than "debt monetization" because it sounds less threatening. All the world's major reserve currency central banks did this. The paradigm that began in 2008 worked as follows.

By printing money and buying debt, as had been done beginning in 1933, central banks kept the money and debt expansion cycle going. They did that by making those purchases, which pushed bond prices up, and providing the sellers of these bonds with cash, which led them to buy other assets. This pushed those asset prices up and, as they rose in price, drove future expected returns down. With interest rates below the expected returns of other investments and bond yields and other future expected returns falling to very low levels relative to the returns needed by investors to fund their various spending obligations, investors increasingly borrowed money to buy assets that they expected to have greater returns than their borrowing costs. In other words they followed the classic bubble process of buying financial assets with borrowed money betting that the assets they bought would have higher returns than their costs of funds. **Those leveraged purchases pushed these asset prices up, drove their expected future returns down, and created a new debt bubble vulnerability that would come home to roost if the incomes produced by the assets they bought had returns that were less than their borrowing costs.** With both long-term and short-term interest rates around 0% and central banks' purchases of bonds not as effectively flowing through to stimulate economic growth and help those who needed it most, it became apparent to me that the second type of monetary policy wouldn't work well and the third type of monetary policy—"Monetary Policy 3," or MP3—would be needed. MP3 works by the reserve currency central governments increasing their borrowing and targeting their spending and lending to where they want it to go with the reserve currency central banks creating money and credit and buying debt (and possibly other assets, like stocks) to fund these purchases.

Throughout all this time, inclusive of all of these swings, the amount of dollar-denominated money, credit, and debt in the world and the amounts of other non-debt liabilities (such as pensions and healthcare) continued to rise in relation to incomes, especially in the US because of the Federal Reserve's unique ability to support this debt growth. Though I won't explain the various ways of doing that here, they were explained in my book *Principles for Navigating Big Debt Crises*, which you can get online for free here.

So, before we had the pandemic-induced downturn, the circumstances were set up for this path being the necessary one in the event of a downturn. If you want to look at relevant research pieces that look at these issues in greater depth that I did at the time, you can find them at economicprinciples.org.

In any case, **throughout this period debt and non-debt obligations (e.g., pensions and healthcare) continued to rise relative to incomes while central banks managed to keep debt service costs down** (see my report "The Big Picture" for a more complete explanation of the coming "squeeze" this will cause). This pushed interest rates toward nil and made the debt long-term so that principal payments would be low. **These conditions—i.e., central banks owning a lot of debt, interest rates around 0% so no interest payment would be required, and structuring debt to be paid back over the very long term so principal payments could be spread out or even possibly not paid back—meant that there was little or no limit to the capacities of central banks to create money and credit. That set of conditions set the stage for what came next.**

The coronavirus trigged economic and market downturns around the world, which created holes in incomes and balance sheets, especially for indebted entities that had incomes that suffered from the downturn. Classically, central governments and central banks had to create money and credit to get it to those entities they wanted to save that financially wouldn't have survived without that money and credit. So, on April 9, 2020 the US central bank (the Fed) announced a massive money and credit creation program, alongside massive programs from the US central government (the president and Congress). They included all the classic MP3 techniques, including helicopter money (direct payments from the government to citizens). It was essentially the same announcement that Roosevelt made on March 5, 1933. While the virus triggered this particular financial and economic downturn, something else would have eventually triggered it, and regardless of what did, the dynamic would have been basically the same because only MP3 would have worked to reverse the downturn. The European Central Bank, the Bank of Japan, and—to a lesser extent—the People's Bank of China made similar moves, though what matters most is what the Federal Reserve did because it is the creator of dollars, which are still the world's dominant money and credit.

The US dollar now accounts for about 55% of the world's international transactions, savings, and borrowing. The Eurozone's euro accounts for about 25%. The Japanese yen accounts for less than 10%. The Chinese renminbi accounts for about 2%. Most other currencies are not used internationally as mediums of exchange or storeholds of wealth, though they are used within countries. Those other currencies are ones that even the smart people in those countries, and virtually everyone outside those countries, won't hold as storeholds of wealth. In contrast, the reserve currencies I mentioned are the currencies that most people around the world like to save, borrow, and transact, roughly in proportion to the percentages I just mentioned.

Countries that have the world's reserve currencies have amazing power—a reserve currency is probably the most important power to have, even more than military power. That is because when a country has a reserve currency it can print money and borrow money to spend as it sees fit, the way the US is doing now, while those that don't have reserve currencies have to get the money and credit that they need (which is denominated in the world's reserve currency) to transact and save in it. For example right now, as of this writing, those who have a lot of debt that they need to service and need more dollars to buy goods and services now that their dollar incomes have fallen are strongly demanding dollars.

As shown in the chart in Chapter 1 that depicts eight measures of a country's rising and declining power, the reserve currency power (which is measured by the share of transactions and savings in that currency) significantly lags the other measures of the country's strength. That has been true for the US and the US dollar. For example, in 1944 when the US dollar was anointed as the world's dominant reserve currency, the US had around two-thirds of the world's gold held by governments (which was considered money at the time) and accounted for about half of world GDP. Today the US accounts for only around 20% of world GDP but still accounts for about 60% of global reserves and about half of international transactions. So **the US dollar and the dollar-based monetary and payments system still reign supreme and are outsized relative to the size of the US economy.**

As with all banks that printed reserve currencies, **the Federal Reserve is now in the strong but awkward position of running its monetary policy in a way that is good for Americans but that might not be good for others around the world who are dependent on dollars.** For example the US central government just recently decided that it would borrow money to give it and dollar credit to Americans and the Federal Reserve decided to buy that US government debt and a lot more other debt of Americans to help them through this financial crisis. Understandably little of that will go to foreigners. The European Central Bank will do something similar for those in the Eurozone. The Bank of Japan, which is still smaller on the world scene, will do the same thing for the Japanese, and the People's Bank of China will do the same thing for the Chinese. A couple of other relatively small countries (like Switzerland) might be able to do something similar for their people, but most of the world won't get the money and credit they need to fill their income and balance sheet holes the way Americans will. This dynamic of countries not being able to get the hard currency they need is like what happened in the 1982-91 period, except interest rates can't be cut significantly this time while they could be cut very significantly in that 1982-91 period.

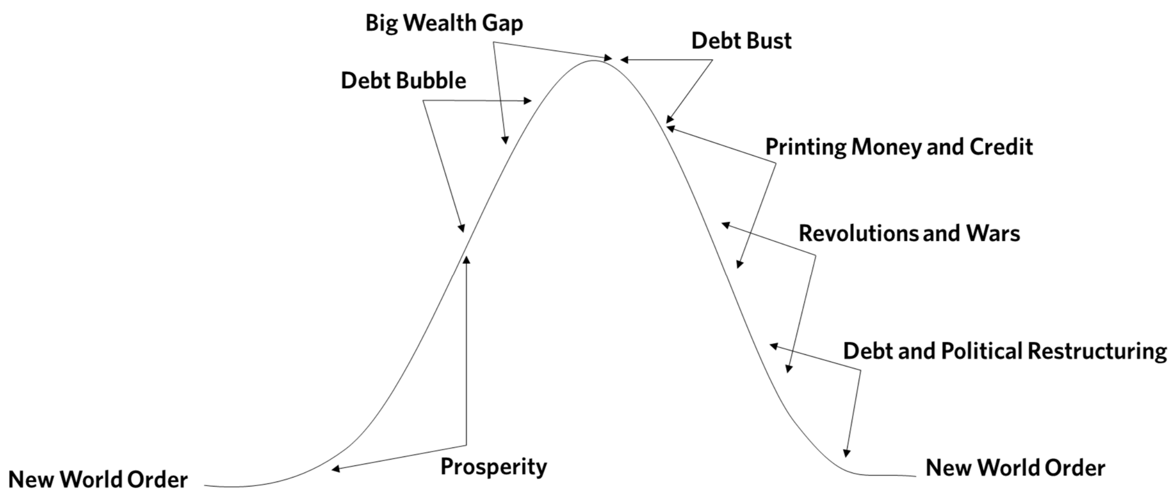
At the same time, dollar-denominated debt owed by non-Americans (i.e., those in emerging markets, European countries, and China) is about $20 trillion (which is about 50% higher than what it was in 2008), with a bit less than half of that total being short-term. These dollar debtors will have to come up with dollars to service these debts and they will have to come up with more dollars to buy goods and services in world markets. So, by having the US dollar as the world's reserve currency and having the world's bank that produces that currency, and by having the power to put these needed dollars in the hands of Americans, the US can help Americans (and others around the world if it so chooses) more effectively than most other countries' governments can help their own citizens. At the same time the US risks losing this privileged position by creating too much money and debt. In the appendix to this chapter we will look much more closely into how countries that had reserve currencies lost them and how devaluations of currencies work.

In Summary: How the **Big Cycle of Money, Credit, Debt & Economic Activity Fits In with the Big Domestic and International Political Cycles to Affect the World Order**

Stepping back to look at all of this from the big-picture level, what I'm saying about the relationship between 1) the economic part (i.e., money, credit, debt, economic activity, and wealth) and 2) the political part (both within countries and between countries) of rises and declines looks like the picture shown below. Typically the big cycles start with a new world order—i.e., a new way of operating both domestically and internationally that includes a new monetary system and new political systems. The last one began in 1945. Because at such times, after the conflicts, there are dominant powers that no one wants to fight and people are tired of fighting, there is a peaceful rebuilding and increasing prosperity that is supported by a credit expansion that is sustainable. It is sustainable because income growth exceeds or keeps pace with the debt-service payments that are required to service the growing debt and because of central banks' capacities to stimulate credit and economic growth is great. Along the way up there are short-term debt and economic cycles that we call recessions and expansions. With time investors extrapolate past gains into the future and borrow money to bet on them continuing to happen, which creates debt bubbles at the same time as the wealth gaps grow because some benefit more than others from this money-making upswing. This continues until central banks run out of their abilities to stimulate credit and economic growth effectively. As money becomes tighter the debt bubble bursts and credit contracts and with it the economy contracts. At the same time, when there is a large wealth gap, big debt problems, and an economic contraction, there is often fighting within countries and between countries over wealth and power. These typically lead to revolutions and wars that can be either peaceful or violent. At such times of debt and economic problems central governments and central banks typically create money and credit to fund their domestic and war-related financial needs. These money and credit crises, revolutions, and wars lead to restructurings of a) the debts, b) the monetary system, c) the domestic order, and d) the international order — which together I am simply calling the world order.

Then it starts again. For example in the United States in the 1930-45 period there was a peaceful domestic revolution that produced a significant wealth redistribution that was accompanied by large government borrowings (creating a lot of government debt) that was financed by the central bank creating a lot of money and credit…and this was followed by violent external wars that were due to rising powers challenging existing world powers, with these wars financed by large government borrowings (that created a lot of government debt) that was financed by central banks creating of money and credit.

The cycle that I am describing is conveyed in the chart below. While no cycle goes exactly this way, almost all of them by and large go that way.



This explanation of money and credit will be followed by an appendix that will show why and how all currencies devalue and/or die, with references to the most important cases of the last 500 years.

Chapter 3:
The Changing Value of Money

Chapter 3: The Changing Value of Money

This is an appendix to Chapter 2, "The Big Cycle of Money, Credit, Debt, and Economic Activity." It is intended to look at the concepts expressed in that chapter in a more granular way and to show you how these concepts are consistent with the actual cases that are behind the concepts. While in this appendix we will get a bit more into the mechanics and specifics than we did in Chapter 2, it is written in a way that should be both palatable to most people and specific enough to satisfy the needs of skilled economists and investors. **If you find that the material that you are reading is getting too wonky for your taste just stick to reading that which is in bold and you should be just fine.**

Rather than carefully examining the whole cycle (which we will do in the Part 2 examinations) we will focus exclusively on big devaluations and end of reserve currency periods because a) the dollar, euro, and yen are in the late stages of their long-term debt cycles when the debts denominated in them are high, real interest rate compensations for holding these debt assets are low, and large amounts of new debt denominated in them are being created and monetized—which is a higher-risk confluence of circumstances, and b) such big devaluations and/or the loss of reserve currency status by the leading reserve currencies would be the most disruptive economic event we could imagine.

As previously explained, there is a real economy and there is a financial economy, which are intertwined but different. The real economy and the financial economy each has its own supply and demand dynamics. In this section we will focus more on the supply and demand dynamics of the financial economy to explore what determines the value of money.

Printing and Devaluing Money Is the Easiest Way out of a Debt Crisis

While people tend to think that a currency is pretty much a permanent thing and believe that "cash" is the safe asset to hold, that's not true because all currencies devalue or die and when they do cash and bonds (which are promises to receive currency) are devalued or wiped out. That is because printing a lot of currency and devaluing debt is the most expedient way of reducing or wiping out debt burdens. When the debt burdens are sufficiently reduced or eliminated, the credit/debt expansion cycles can begin all over again, as described in Chapter 2.

As I explained more comprehensively in my book *Principles for Navigating Big Debt Crises* than I can explain here, **there are four levers that policy makers can pull to bring debt and debt-service levels down relative to the income and cash-flow levels that are required to service one's debts:**

- **Austerity (spending less)**
- **Debt defaults and restructurings**
- **Transfers of money and credit from those who have more than they need to those who have less than they need (e.g., raise taxes)**
- **Printing money and devaluing it**

Austerity is deflationary and doesn't last long because it's too painful. Debt defaults and restructurings are also deflationary and painful because the debts that are wiped out or reduced in value are someone's assets; as a result defaults and restructurings are painful for both the debtor who goes broke and has their assets taken away and for the creditor who loses the wealth arising from having to write down the debt. Transfers of money and credit from those who have more than they need to those who have less than they need (e.g., raising taxes to redistribute wealth) is politically challenging but more tolerable than the first two ways and is typically part of the resolution. In comparison to the others, **printing money is the most expedient, least well-understood, and most common big way of restructuring debts.** In fact it seems good rather than bad to most people because it helps to relieve debt squeezes, it's tough to identify any harmed parties that the wealth was taken away from to provide this financial wealth (though they are the holders of money and debt assets), and in most cases it causes assets to go up in the depreciating currency that people use to measure their wealth in so that it appears that people are getting richer.

You are seeing these things happen now in response to the announcements of the sending out of large amounts of money and credit by central governments and central banks.

Note that you don't hear anyone complaining about the money and credit creation; in fact you hear cries for a lot more with accusations that the government would be cheap and cruel if it didn't provide more. There isn't any acknowledging that the government doesn't have this money that it is giving out, that the government is just us collectively rather than some rich entity, and that someone has to pay for this. Now imagine what it would have been like if government officials cut expenses to balance their budgets and asked people to do the same, allowing lots of defaults and debt restructurings, and/or they sought to redistribute wealth from those who have more of it to those who have less of it through taxing and redistributing the money. This money and credit producing path is much more acceptable. It's like playing Monopoly in a way where the banker can make more money and redistribute it to everyone when too many of the players are going broke and getting angry. You can understand why in the Old Testament they called the year that it's done "the year of Jubilee."

Most people don't pay enough attention to their currency risks. Most worry about whether their assets are going up or down in value; they rarely worry about whether their currency is going up or down. Think about it. Right now how worried are you about your currency declining relative to how worried you are about how your stocks or your other assets are doing? If you are like most people, you are not nearly as aware of your currency risk and you need to be.

So let's explore that currency risk.

All Currencies Have Been Devalued or Died

Think about holding currencies (which is the same as holding cash) in the same way as you would think about holding any other assets. How would you have done in these investments?

Of the roughly 750 currencies that have existed since 1700, only about 20% remain, and of those that remain all have been devalued. In 1850 the world's major currencies wouldn't look anything like the ones today. While the dollar, pound, and Swiss franc existed back then, most others were different and have since died. In 1850 in what is now Germany, you would have used the gulden or the thaler. There was no yen, so in Japan you might have used a koban or the ryo instead. In Italy you would have used one or more of the six possible currencies. You would have used different currencies in Spain, China, and most other countries. Some were completely wiped out (in most cases they were in countries that had hyperinflation and/or lost wars and had large war debts) and replaced by entirely new currencies. Some were merged into currencies that replaced them (e.g., the individual European currencies were merged into the euro). And some remain in existence but were devalued, like the British pound and the US dollar.

What Do They Devalue Against?

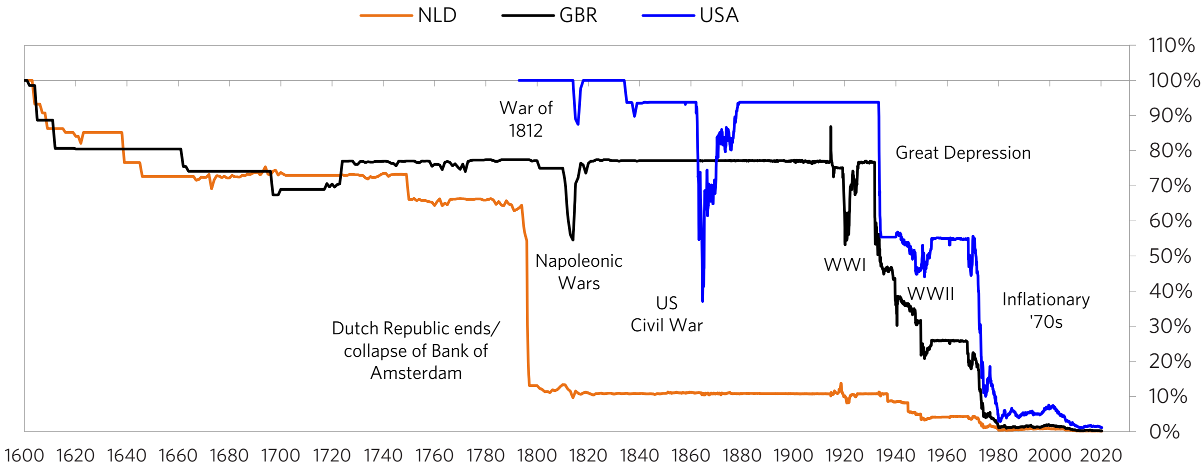
The most important thing for currencies to devalue against is debt. That is because the goal of printing money is to reduce debt burdens. Debt is a promise to deliver money, so giving more money to those who need it lessens the debt burden. How this newly created money and credit then flow determines what happens next. **Increases in the supply of money and credit both reduce the value of money and credit (which hurts holders of it) and relieve debt burdens. In cases in which the debt relief facilitates the flows of this money and credit into productivity and profits for companies, rising real stock prices (i.e., the value of stocks after adjusting for inflation) happens. When it sufficiently hurts the actual and prospective returns of "cash" and debt assets so that it drives flows out of these assets and into inflation-hedge assets and other currencies, that leads to a self-reinforcing decline in the value of money.** At times when the central bank is faced with the choice of a) allowing real interest rates (i.e., the rate of interest minus the rate of inflation) to rise to the detriment of the economy or b) preventing real interest rates from rising by printing money and buying those cash and debt assets, they will choose the second path, which reinforces the bad returns of holding "cash" and those debt assets. The later one is in the long-term debt cycle—i.e., a) when the amounts of debt and money are impossibly large for them to be turned into real value for the amounts of goods and services they are claims on, b) when the levels of real interest rates that are low enough to save debtors from bankruptcy are below the levels that are required for creditors to hold the debt as a viable storehold of wealth, and c) when the normal central bank levers of allocating capital via interest rate changes (MP1) and/or printing money and buying high-quality debt (MP2) don't work so that monetary policy becomes a facilitator of the political system that allocates resources in an uneconomic way—the greater the likelihood that there will be a breakdown in the currency and monetary system. So, there are a) systemically beneficial devaluations (though they are always costly to the holders of money and debt) and b) systemically destructive ones that damage the credit/capital allocation system but are required to wipe out the debt in order to create a new monetary order. It's important to be able to tell the difference. In this study we will explore both types.

To do that I will show you the value of currencies in relation to both <u>gold</u> and <u>consumer price index weighted baskets of goods and services</u> because gold has been the timeless and universal alternative currency and because money is meant to buy goods and services so its buying power is of paramount importance. I will also touch on their value in relation to <u>other currencies/debt</u> and in relation to <u>stocks</u> because they too can be storeholds of wealth. The pictures that all these measures convey are broadly similar in big currency devaluations because the currency moves are so significant that they change in relation to most things. Because many other things (real estate, art, etc.) are also alternative storeholds of wealth, we could go on and on describing how they perform in big currency devaluations but I chose not to because that would take this past the point of diminishing returns.

In Relation to Gold

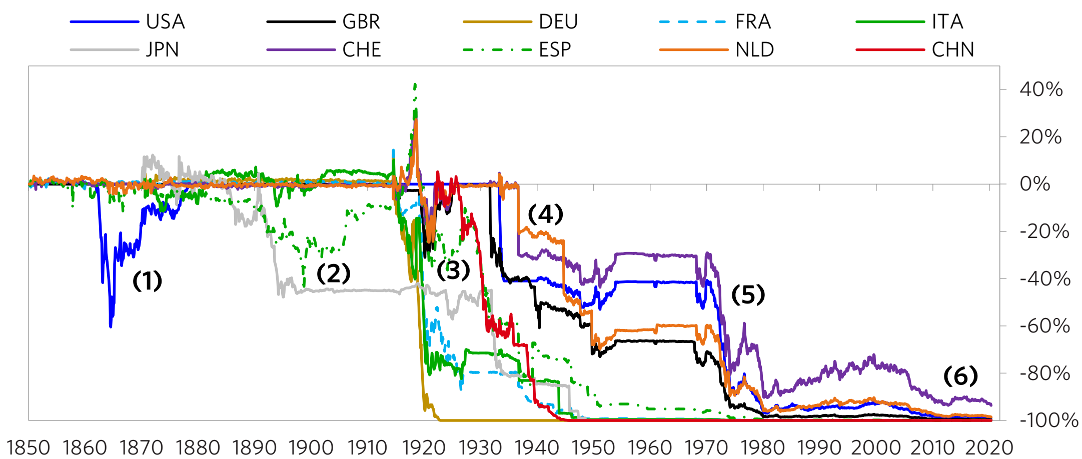
The chart below shows spot currency returns of the three major reserve currencies in relation to gold since 1600. While **we will examine these in depth in this study**, for now I would like to focus your attention on both the spot currency returns and the total returns of holding interest-earning cash in all the major currencies since 1850.

Reserve Currencies vs Gold (Spot FX)

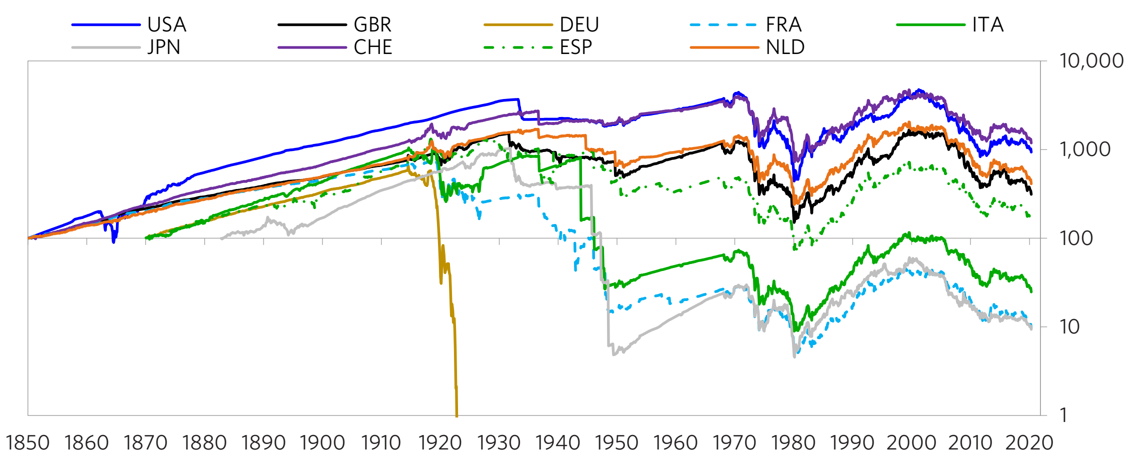


As shown in the next two charts, devaluations typically occur as relatively abrupt declines during debt crises that are separated by periods of currency stability during periods of prosperity. I noted six such ones, which we will soon delve into. Of course there were many more devaluations of more minor currencies that we won't get into right now.

Spot FX vs Gold



FX Total Return vs Gold (ln)



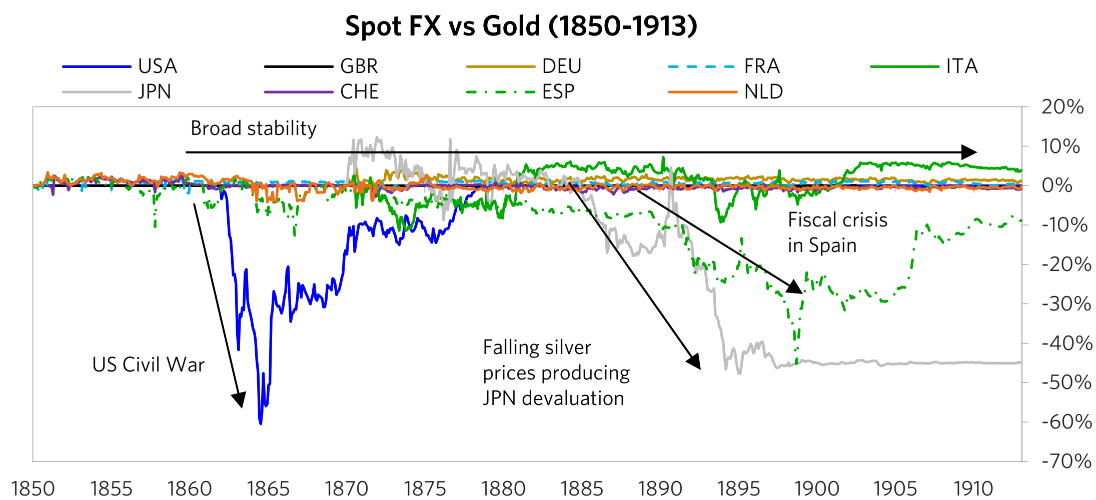
Here are some notable takeaways:

- Big devaluations have tended to be more episodic than evolutionary. There were six time frames that there were really big devaluations of major currencies (though plenty more of minor currencies) over the last 170 years.
- In the 1860s the large financing needs of the Civil War prompted the US to suspend gold convertibility and print money (known as "greenbacks") to help monetize war debts.
- After the US returned to its prior gold peg in the mid-1870s a number of other countries joined the gold standard; most currencies remained fixed against gold up until World War I. Major exceptions were Japan (which was on a silver-linked standard until the 1890s, which led its exchange rate to devalue against gold as silver prices fell during this period), and Italy and Spain, which frequently suspended convertibility to support large fiscal deficits.
- Then came World War I when warring countries ran enormous deficits that were funded by central banks' printing and lending of money. During the war years gold was international money as international credit was lacking because trust was lacking. Then the war ended, and a new monetary order was created with gold and the winning countries' currencies, which were tied to it, at the center of that new monetary order.
- Still, in 1919-22 the printing of money and devaluations of several European currencies were required as an extension of the debt crises of those most indebted, especially those that lost World War I. As shown this led to the total extinction of the German mark and German mark debt in the 1920-23 period and big devaluations in other countries' currencies including the winners of the war that also had debts that had to be devalued to create a new start.
- With the debt, domestic political, and international geopolitical restructurings done, the 1920s was a boom period, which became a bubble that burst in 1929.
- In 1930-45, 1) when the debt bubble burst that required central banks to print money and devalue it, and then 2) when the war debts had to increase to fund the war that required more printing of money and more devaluations.
- At the end of the war, in 1944-45, the new monetary system that linked the dollar to gold and other currencies to the dollar was created, and the currencies and debts of Germany, Japan, Italy, and China (and a number of other countries) were quickly and totally destroyed while those of most winners of the war were slowly but still substantially depreciated. That monetary system stayed in place until the late 1960s.
- In 1968-73 (most importantly in 1971), when excessive spending and debt creation especially by the US required the breaking of the link with gold because claims on gold were being turned in for actual gold and the claims were far greater than the amount of gold that was available to redeem the claims, that led to going to a dollar-based fiat monetary system that allowed the big increase in dollar-denominated money and credit that fueled the inflation of the 1970s and led to the debt crisis of the 1980s.
- Since 2000 the value of money has fallen in relation to the value of gold due to lots of money and credit creation and because of interest rates being low in relation to inflation rates. Because the monetary system has been a free-floating monetary system there have not been the abrupt breaks that there have been in the past; there has been a more gradual and continuous devaluation in which low or in some cases negative interest rates did not provide compensation for the increasing amount of money and credit and the resulting (albeit low) inflation.

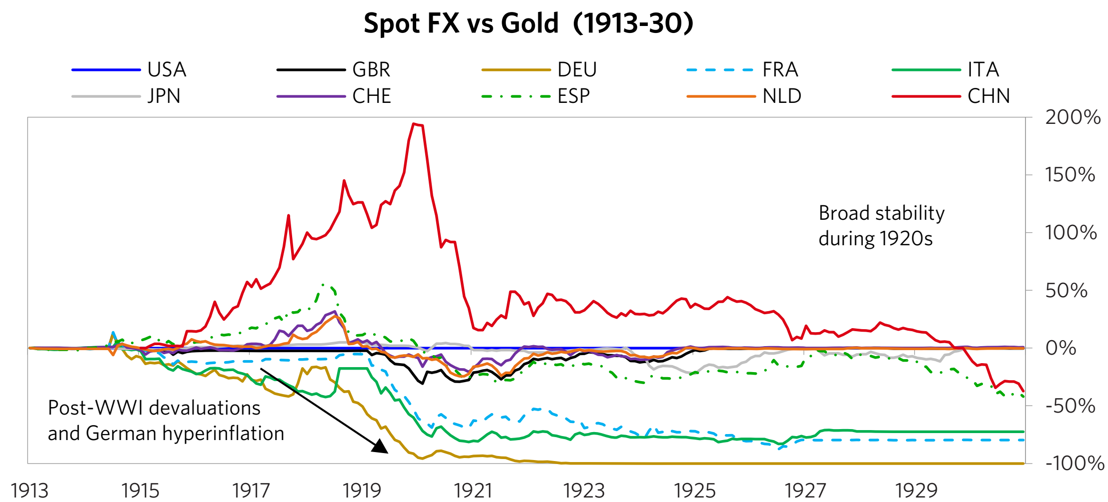
Let's look at these periods more closely.

As shown in the prior charts, the returns of holding currencies (i.e., short-term debt that collects interest) during the period from 1850 to 1913 were generally profitable relative to the returns of holding gold. During that more than 60-year debt/currency cycle period, most currencies were able to remain fixed against gold or silver and one would have collected an attractive interest rate because it was mostly a prosperous period in which both lending and borrowing worked well for those who did it. That prosperous period was what is known as the Second Industrial Revolution, when the borrowers turned the money they borrowed into earnings that allowed the debts to be paid back. While there were debt crises in that period (such as "the Panic of 1873," "the Panic of 1893," and "the Panic of 1907" in the US) they were not big enough to necessitate devaluations, though they were turbulent. For example, the prosperity of the Second Industrial Revolution led to a debt-financed speculative boom in stocks that grew overextended, which led to a banking and brokerage crisis. In the US that led to the six-week-long Panic of 1907 at the same time the large wealth gap and other social issues (e.g., women's suffrage) caused political tensions, capitalism was challenged, and taxes started to rise to fund the wealth redistribution process.

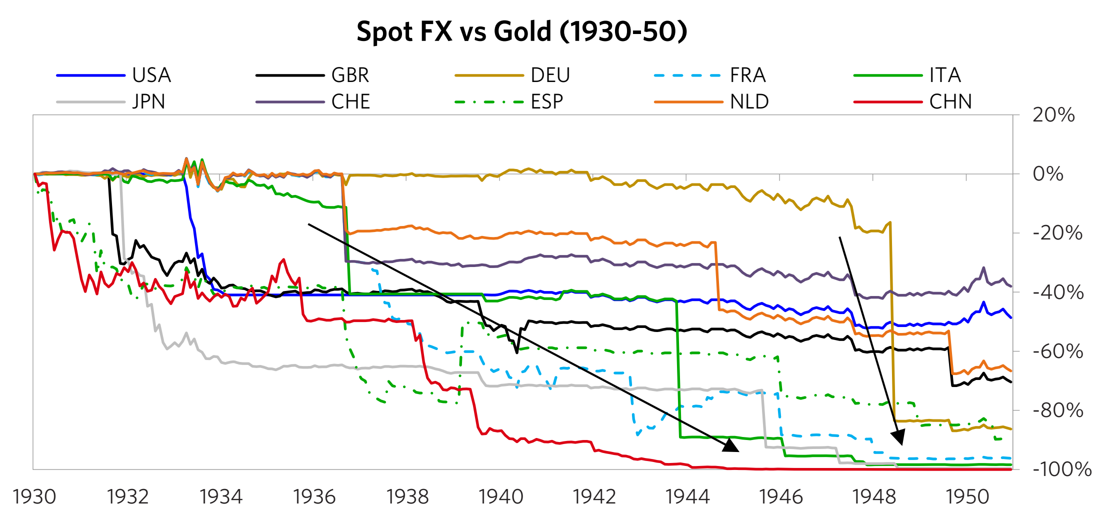
In China, which was still a world away but impacted, there was the same dynamic—a stock market bubble led by rubber production stocks (which was China's equivalent of America's railroad stock bubbles that contributed to panics there throughout the 19th century) that burst and led to a crash in 1910, which some have described as a factor in a debt/money/economic downswing that contributed to the end of Imperial China. So, throughout that period the Type 2 monetary systems (i.e., with notes convertible into metal money) remained in place in most countries and holders of notes got paid good interest rates without having their currencies devalued. The big exceptions were the US devaluation to finance the Civil War debts in the 1860s, the frequent devaluations of Spain's currency due to its continued weakening as a global power, and the sharp devaluations in Japan's currency due to its remaining on a silver-linked standard until the 1890s (and silver prices falling relative to gold prices in this period).



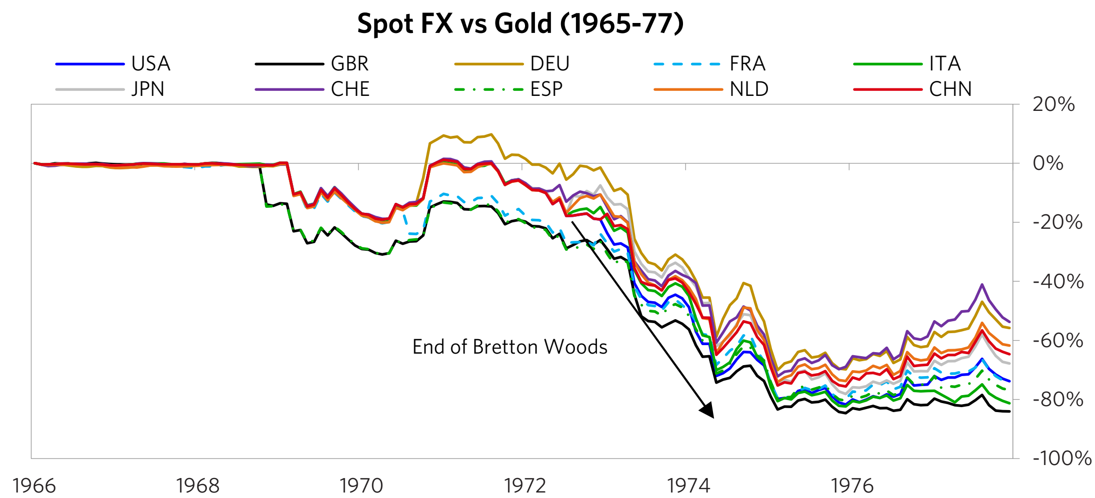
World War I began in 1914 and countries borrowed a lot to fund it, which led to the late debt cycle breakdowns and devaluations that came when war debts had to be wiped out, effectively destroying the monetary systems of those who lost the war. The Paris Peace Conference that ended the war in 1918 attempted to institute a new international order around the League of Nations, but the efforts at cooperation were unable to avoid debt crises and monetary instability due to huge war indemnities placed on the defeated powers (such as Germany in the Treaty of Versailles), as well as large war debts owed by the victorious Allies to each other (particularly to the US). As shown in the chart below, that led to a complete wipeout of the value of money and credit in Germany, which led to the world's most iconic hyperinflation in the Weimar Republic. As you will read briefly when we cover Germany's rise and decline in Part 2 (and as you can read much more completely in my detailed examination of the Weimar Republic in *Principles for Navigating Big Debt Crises*) this case was the direct result of Germany having these enormous war-related debts and indemnities that had to be disposed of. The Spanish flu also occurred during the period, beginning in 1918 and ending in 1920. Coming out of the war, all currencies except the US dollar, the Japanese currency, and the Chinese currency devalued because they had to monetize some of their war debts and because not to devalue with the countries that devalued would have hurt their competitiveness in world markets. As shown in the chart below, China's silver-based currency rallied sharply relative to gold (and gold-linked currencies) near the end of the war as prices rose and then mechanically devalued as silver prices fell sharply amid the post-war deflation in the US. That was then followed by an extended and productive period of economic prosperity, particularly in the US, that was known as the Roaring '20s, which like all such periods, led to big debt and asset bubbles and a large wealth gap that sowed the seeds for the turbulence that lay ahead.



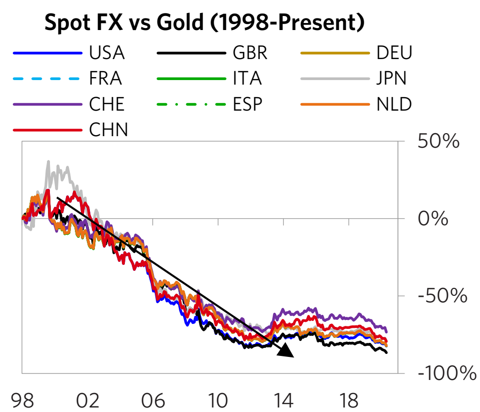
Next, in the 1930s you see different versions of the same thing happening in all countries—i.e., in the 1930-33 period there was a global debt crisis that led to economic contractions that led to the printing of money and competitive devaluations in virtually all countries, which eroded the value of money moving into World War II. The conflicts over wealth within countries and between countries led to greater conflicts within and between countries. All the warring countries built up war debts while the US gained a lot of wealth (gold) in the war. Then, after the war, the value of money and debt was completely wiped out for the losers of the war (i.e., Germany, Japan, and Italy), as well as for China, and was severely devalued for Great Britain and France even though they were the supposed winners of the war. I should note that during war years money and credit are not commonly accepted between countries because there is a justifiable wariness about whether they will get paid back in currency that has value. During wars gold, or in some cases silver or barter, is the coin of the realm. At such times prices and capital flows are typically controlled so it is even difficult to say what the real prices of many things are. After the war was the prosperity period that we won't examine other than to say that within it was excessive borrowing that sowed the seeds of the next big devaluation, which happened in 1968-73.

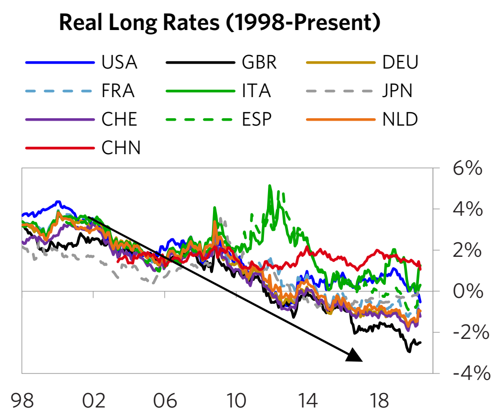


By the mid-1950s, before that devaluation, the dollar and the Swiss franc were the only currencies worth even half of their 1850s value. As shown below, the downward pressure in currencies and upward pressure in gold started in 1968 and was made official on August 15, 1971, when President Nixon ended the Bretton Woods monetary system, leaving the Type 2 monetary system in which the dollar was backed by gold, and going to a fiat monetary system.



Since 2000 we have seen a more gradual and orderly loss of total return in currencies when measured in gold, consistent with the broad fall in real rates across countries during those decades.





In summary the basic picture is that:

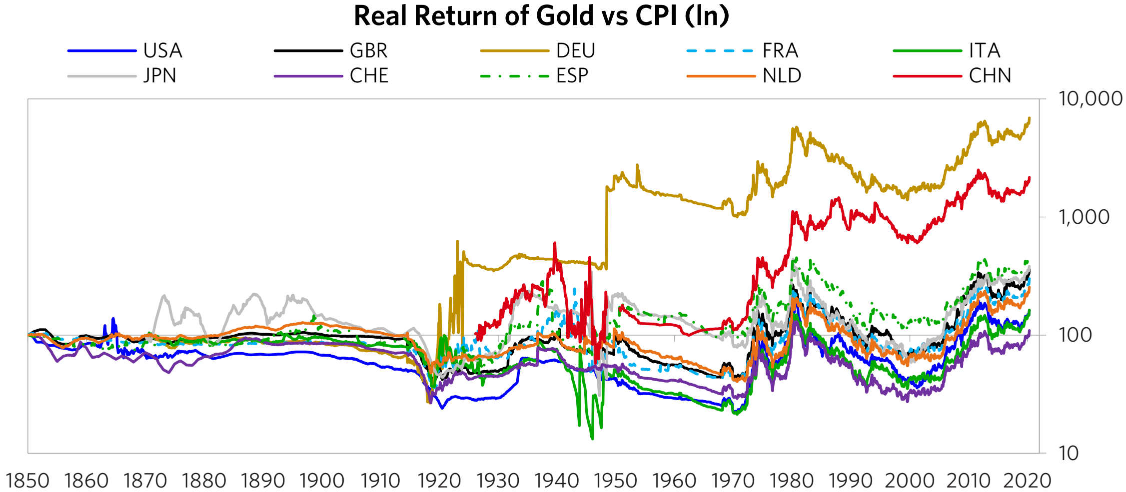
- The average annual return of holding interest-earning cash currency since 1850 was 1.2%, which was a bit lower than the average real return of holding gold, which was 1.3%, though there were huge differences in their returns at various periods of time and in various countries.
- In about half of the countries since 1850 you would have received a positive real return for holding bills, in half a negative real return, and in cases like Germany you would have been totally wiped out twice.
- Most of the real return from holding interest-earning cash currency came in the periods when most countries were on gold standards that they adhered to because they were in prosperous periods (e.g., in the Second Industrial Revolution and in the post-1945 boom when debt levels and debt-service burdens were relatively low and income growth was nearly equal to debt growth) until near the end of that long cycle.
- The real (i.e., inflation-adjusted) return for bills since 1912 (the modern fiat era) has been -0.2%. The real return of gold during this era has been 2.2%. During this period you would only have made a positive real return holding interest-earning cash currency in about half of the countries, and you would have lost meaningfully in the rest (losing over 2% a year in France, Italy, and Japan, and losing over 15% a year in Germany due to the hyperinflation).

Currencies of Major Economies in 1850 & Returns to Present						
Country	Real Returns (vs. CPI), Ann.					
	1850-Present		1850-1912		1912-Present	
	Continuous Gov Bill Investment	Gold	Continuous Gov Bill Investment	Gold	Continuous Gov Bill Investment	Gold
United Kingdom	1.4%	0.6%	3.1%	-0.1%	0.5%	1.1%
United States	1.6%	0.2%	3.7%	-1.0%	0.4%	0.9%
Germany	-11.9%	2.8%	2.9%	-1.0%	-17.0%	4.2%
France	-0.7%	0.6%	2.6%	-0.4%	-2.6%	1.1%
Italy	-0.6%	0.2%	4.7%	-0.5%	-2.6%	0.5%
Japan	-0.7%	0.9%	4.9%	0.3%	-2.2%	1.1%
Switzerland	1.5%	0.0%	3.4%	-0.6%	0.5%	0.3%
Spain	1.5%	1.0%	4.5%	0.0%	0.3%	1.4%
Netherlands	1.4%	0.5%	3.3%	0.0%	0.3%	0.7%
China	--	3.3%	--	--	--	3.3%
Average	1.2%	1.3%	3.6%	-0.3%	-0.2%	2.2%

Note: Data for CHE is since 1851; data for DEU, ESP, and ITA is since 1870; data for JPN is since 1882; data for CHN is since 1926 (excluding 1948-50). Average return is un-rebalanced and doesn't include China.

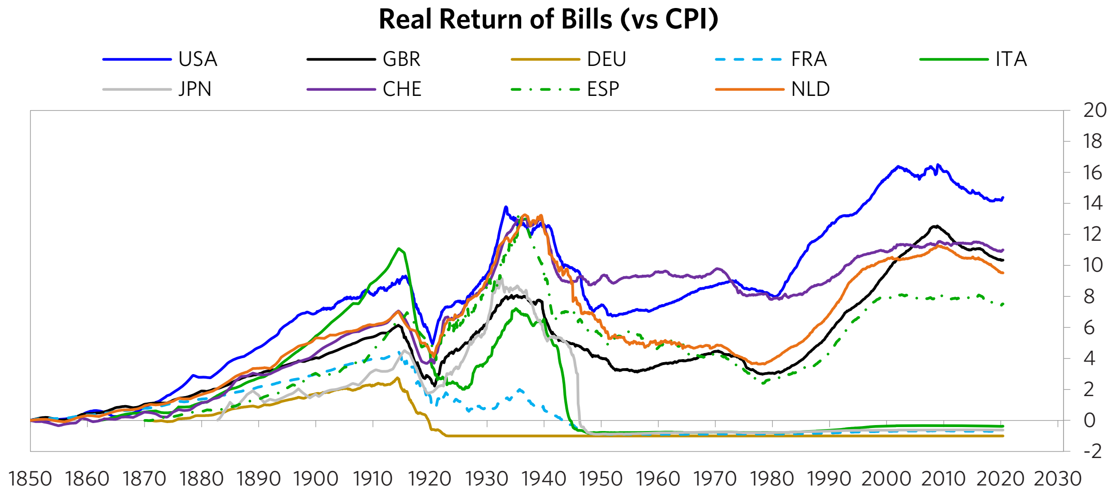
The next chart shows the real returns of holding gold throughout the period from 1850 to the present. As shown, from 1850 until 1971 gold returned (through its appreciation) an amount that equaled the amount of money lost to inflation, with the exception of Germany, though there were big variations around that average such as those previously described (e.g., until the 1930s currency devaluations and the end of World War II devaluations of money that were part of the formation of the Bretton Woods monetary system in 1944). Gold stayed steady in price while money and credit expanded until 1971. Then in 1971 currencies were devalued and delinked from gold so there was a shift from a Type 2 monetary system (e.g., notes backed by gold) to a fiat monetary system. That delinking of currencies from gold and going to a fiat monetary system gave central banks the unconstrained ability to create money and credit. In turn that led to high inflation and low real interest rates that led to the big appreciation in the real gold price until 1980-81 when interest rates were raised significantly above the inflation rate, which led currencies to strengthen and gold to fall until 2000. That is when central banks pushed interest rates down relative to inflation rates and, when they couldn't push them any lower by normal means, printed money and bought financial assets, which was supportive to gold prices.

Real Return of Gold vs CPI (ln)



The Value of Currencies in Relation to Goods and Services

Thus far we have looked at the market values of currencies in relation to the market value of gold. That raises the question about **how much of this picture is because we are looking at the value of currencies relative to gold** and whether that is an appropriate gauge. **The next chart shows the value of interest-rate-earning cash currency in terms of the CPI baskets of goods and services in these currencies, so it shows changes in buying power.** As shown the two world wars were very bad, and since then there have been ups and downs. In about half of the currencies interest-rate-earning cash provided a return that was above the rate of inflation, in the other half it provided bad real returns, and in all cases, there were big and roughly 10-year-long swings around these averages. In other words, **history has shown that there are very large risks in holding interest-earning cash currency as a storehold of wealth especially late in debt cycles.**



The Patterns of Countries Devaluing and Losing Their Reserve Currency Status

Currencies devaluing and currencies losing their reserve currency position aren't necessarily the same things though they are caused by the same things (debt crises) and a currency losing its reserve currency status comes from chronic and large devaluations. As previously explained, when central banks increase the supply of money and credit it reduces the value of money and credit. This is bad for holders of money and credit but a relief to debt burdens. When this debt relief allows money and credit to flow into productivity and profits for companies, real stock prices rise. But it can also damage the actual and prospective returns of "cash" and debt assets enough to drive people out of those assets and into inflation-hedge assets and other currencies. This leaves the central bank faced with the choice of either allowing real interest rates to rise to the detriment of the economy or preventing rates from rising by printing money and buying those cash and debt assets. Inevitably, they will follow the second path, which reinforces the bad returns of holding "cash" and those debt assets. As explained earlier, when it's late in the long-term debt cycle, there is a greater likelihood that there will be a breakdown in the currency and monetary system, and the important thing is to tell the difference between systemically beneficial devaluations and systemically destructive ones.

What do these devaluations have in common?

- In the major cases we looked at, all of the economies experienced a classic "run" dynamic, as there were more claims on the central banks than there was hard currency available to satisfy the claims on that money, which was typically gold, though it was US dollars for the UK reserve currency decline because at that time the British pound was linked to the US dollar.
- Net central bank reserves start falling prior to the actual devaluation, in some cases starting years ahead of the devaluation. It's also worth noting that in several cases countries suspended convertibility ahead

of the actual devaluation of the exchange rate, such as with the UK in 1947 ahead of the 1949 devaluation, or for the US in 1971.

- The run on the currency and the devaluations typically came alongside significant debt problems, often related to wartime spending (the Fourth Anglo-Dutch War for the Dutch, the world wars for the UK, Vietnam for the US under Bretton Woods), which put pressure on the central bank to print. The worst situations were when countries lost their wars; that typically led to the total collapse and restructuring of their currencies and their economies. However, winners of wars that ended up with debts that were much larger than their assets and reduced competitiveness (e.g., Great Britain) also lost their reserve currency status, though more gradually.
- Typically central banks respond initially by not increasing the supply of money so that when their currency and debt are being sold they let short-term rates rise to forestall the devaluation, but that is too economically painful, so they quickly capitulate and devalue. Then, after the devaluation, they typically cut rates.
- After devaluation, the outcomes diverge significantly across the cases, with a key variable being how much economic and military power the country retained at the time of the devaluation, which impacted how willing savers were to continue holding their money there.
- More specifically for the major reserve currencies:
    - For the Dutch, the collapse of the guilder was massive and relatively quick in taking place over less than a decade, with the actual circulation of guilders falling swiftly by the end of the Fourth Anglo-Dutch War. This collapse came as the Netherlands entered a steep decline as a world power, first losing a major war against the British and subsequently facing invasion on the continent from France.
    - For the British, the decline was more gradual: it took two devaluations before it fully lost its reserve currency status, though it experienced periodic balance of payments strains over the intervening period. Many of those who continued to hold reserves in pounds did so due to political pressures and their assets significantly underperformed US assets during the same time.
    - In the case of the US, there were two big abrupt devaluations (in 1933 and 1971) and more gradual devaluations against gold since 2000, but they haven't cost the US its reserve currency status.
    - Typically leading up to a country losing its reserve currency position 1) there is an already established loss of economic and political primacy to a rising rival that creates a vulnerability (e.g., the Dutch falling behind the UK or the UK falling behind the US) and 2) there are large and growing debts that are monetized by the central bank printing money and buying government debt, leading to 3) a weakening of the currency in a self-reinforcing run from the currency that can't be stopped because the fiscal and balance of payments deficits are too great for cutbacks to close.

As this appendix is getting long, I have decided to cut it here and to follow in a few days with the rest, which consists of brief explanations of the decline phases of the Dutch guilder and British pound and their empires.

Chapter 4:
The Last 500 Years Part 1: The Big Cycles of the Dutch and British Empires and Their Currencies

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In Chapter 1 ("The Big Picture in a Tiny Nutshell"), I looked at the archetypical rises and declines of empires and their reserve currencies and the various types of powers that they gained and lost, and in Chapter 2 ("The Big Cycle of Money, Credit, Debt, and Economic Activity") and its appendix ("The Changing Value of Money") I reviewed the big money, credit, and debt cycles. In this chapter, I will review **the rises and declines of the Dutch, British, and American empires and their reserve currencies and will touch on the rise of the Chinese empire.**

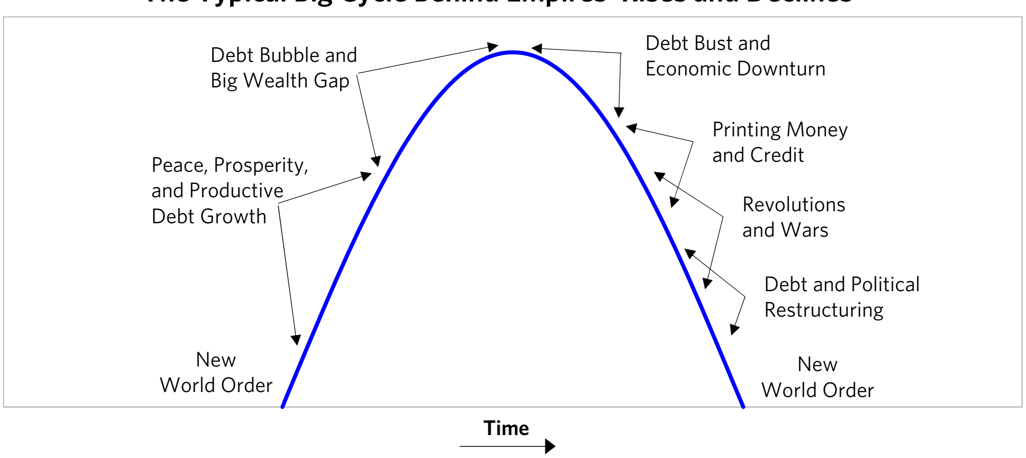
While the evolution of empires and currencies is one continuous story that started before there was recorded history, in this chapter I am going to pick up the story around the year 1600. My objective is simply to put where we are in perspective of history and bring us up to date. I will begin by very briefly reviewing what the Big Cycle looks like and then scan through the last 500 years to show these Big Cycles playing out before examining more closely the declines of the Dutch and British empires and their reserve currencies. Then I will show how the decline of the British empire and the pound **evolved into the rise of the US empire and US dollar and I will take a glimpse at the emergence of the Chinese empire and the Chinese renminbi.**

That will bring us up to the present and prepare us to try to think about what will come next.

The Big Cycle of the Life of an Empire

Just as there is a human life cycle that typically lasts about 80 years (give or take) and no two are exactly the same but most are similar, there is an analogous empire life cycle that has its own typical patterns. For example, for most of us, during the first phase of life we are under our parents' guidance and learn in school until we are about 18-24, at which point we enter the second phase. In this phase we work, become parents, and take care of others who are trying to be successful. We do this until we are about 55-65, at which time we enter the third phase when we become free of obligations and eventually die. **It is pretty easy to tell what phases people are in because of obvious markers, and it is sensible for them to know what stages they are in and to behave appropriately in dealing with themselves and with others based on that. The same thing is true for countries. The major phases are shown on this chart. It's the ultra-simplified archetypical Big Cycle that I shared in the last chapter.**

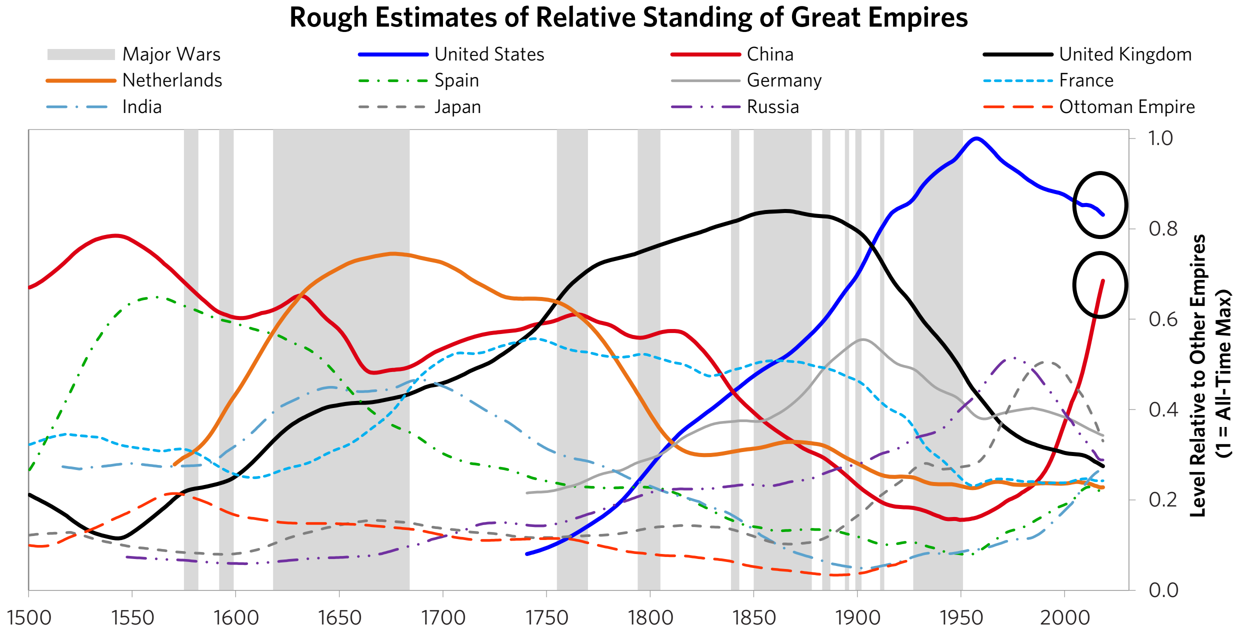
The Typical Big Cycle Behind Empires' Rises and Declines



In brief, after the creation of a new set of rules establishes the new world order, there is typically a peaceful and prosperous period. As people get used to this they increasingly bet on the prosperity continuing, and they increasingly borrow money to do that, which eventually leads to a bubble. As the prosperity increases the wealth

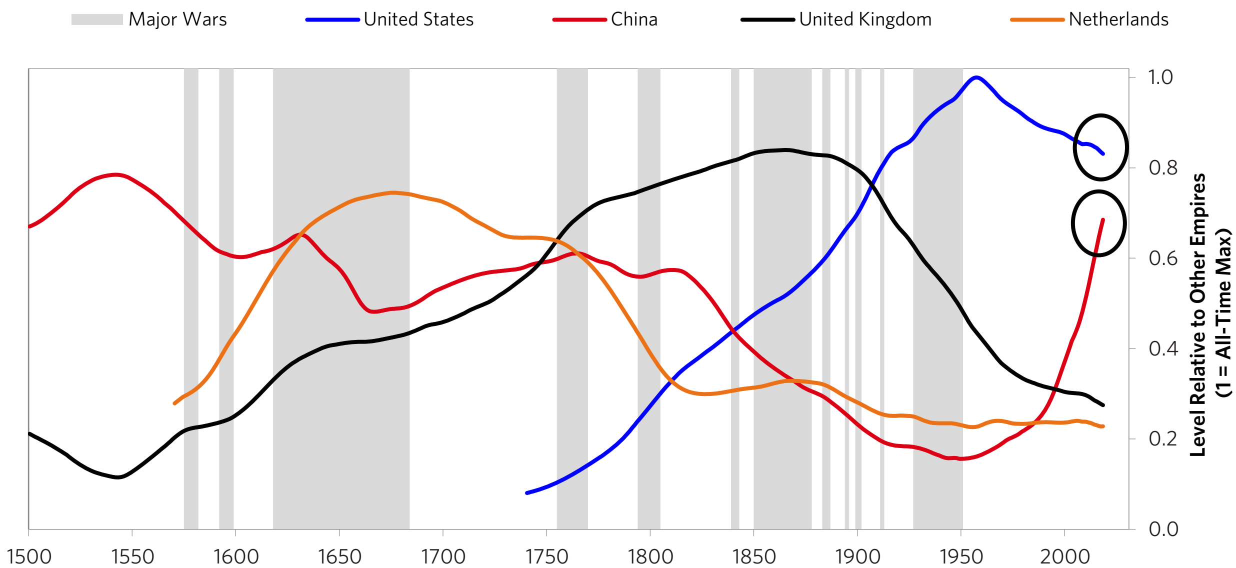
gap grows. Eventually the debt bubble bursts, which leads to the printing of money and credit and increased internal conflict, which leads to some sort of wealth redistribution revolution that can be peaceful or violent. Typically at that time late in the cycle the leading empire that won the last economic and geopolitical war is less powerful relative to rival powers that prospered during the prosperous period, and with the bad economic conditions and the disagreements between powers there is typically some kind of war. Out of these debt, economic, domestic, and world-order breakdowns that take the forms of revolutions and wars come new winners and losers. Then the winners get together to create the new domestic and world orders.

That is what has repeatedly happened through time. The lines in the chart signify the relative powers of the 11 most powerful empires over the last 500 years. In the chart below you can see where the US and China are currently in their cycles. **As you can see the United States is now the most powerful empire by not much, it is in relative decline, Chinese power is rapidly rising, and no other powers come close.**



Because that chart is a bit confusing, for simplicity the next chart shows the same lines as in that chart except for just the most powerful reserve currency empires (which are based on an average of eight different measures of power that we explained in Chapter 1 and will explore more carefully in this chapter).

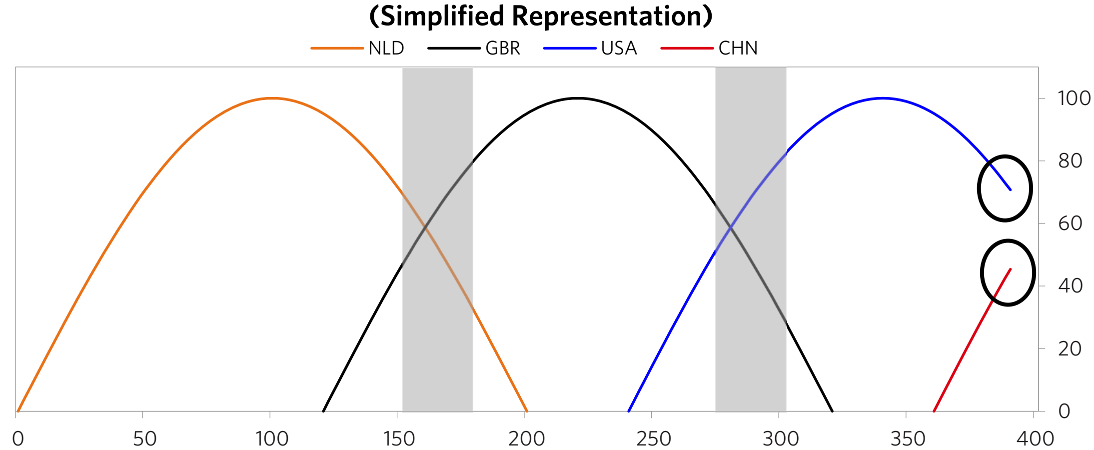
Rough Estimates of Relative Standing of Great Empires



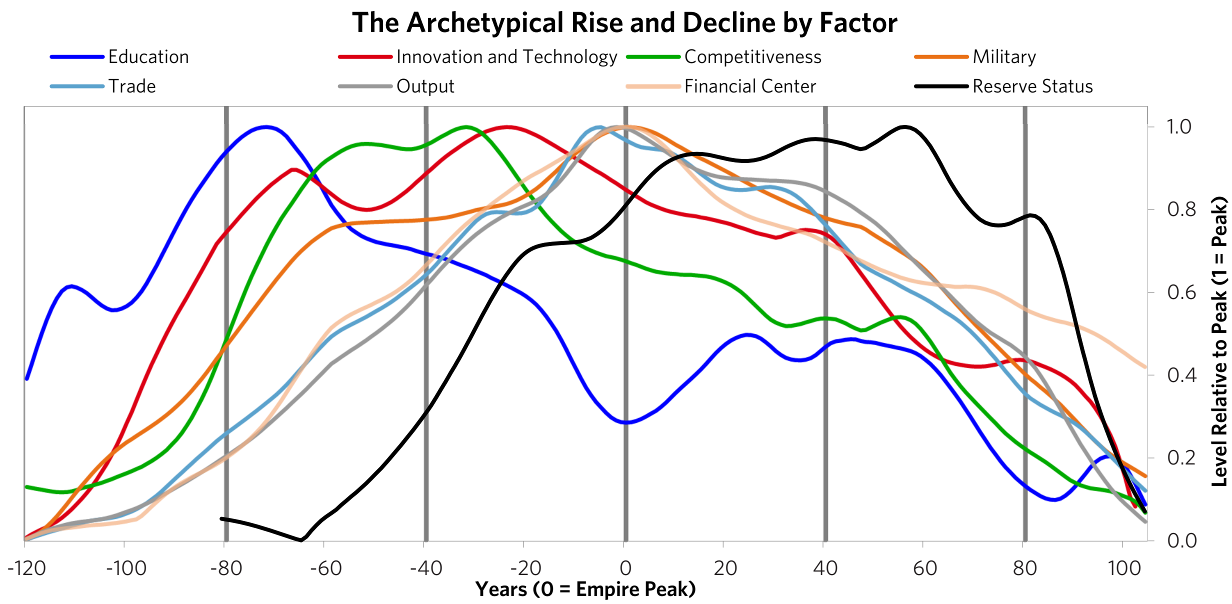
The next chart offers an even more simplified view. As shown, the United States and China are the only two major powers, you can see where each of their Big Cycles is, and you can see that they are approaching comparability, which is when the risks of wars of one type or another are greater than when the leading powers are earlier in the cycle. To be clear, I didn't start out trying to make an argument and then go looking for stats to support it; doing that doesn't work in my profession as only accuracy pays. I simply gathered stats that reflected these different measures of strength and put them in these indices, which led to these results. I suspect that if you did that exercise yourself picking whatever stats you'd like you'd see a similar picture, and I suspect that what I'm showing you here rings true to you if you're paying attention to such things.

For those reasons I suspect that all I am doing is helping you put where we are in perspective. To reiterate, I am not saying anything about the future. I will do that in the concluding chapter of this book. All I want to do is bring you up to date and, in the process, make clear how these cycles have worked in the past, which will also alert you to the markers to watch out for and help you see where in the cycles the major countries are and what is likely to come next.

Reserve Empire Transitions of the Past Four Centuries
(Simplified Representation)



The chart below from Chapter 1 shows this play out via the eight measures of strength—education, innovation and technology, competitiveness, military, trade, output, financial center, and reserve status—that we capture in the aggregate charts. It shows the average of each of these measures of strength, with most of the weight on the most recent three reserve countries (the US, the UK, and the Dutch).[10]



As explained in Chapter 1, in brief these strengths and weaknesses are mutually reinforcing—i.e., strengths and weaknesses in education, competitiveness, economic output, share of world trade, etc., contribute to the others being strong or weak, for logical reasons—and their order is broadly indicative of the processes that lead to the rising and declining of empires. For example, quality of education has been the long-leading strength of rises and declines in these measures of power, and the long-lagging strength has been the reserve currency. That is because strong education leads to strengths in most areas, including the creation of the world's most common currency. That common currency, just like the world's common language, tends to stay around because the habit of usage lasts longer than the strengths that made it so commonly used.

We will now look at the specifics more closely, starting with how these Big Cycles have played out over the last 500 years and then looking at the declines of the Dutch and British empires so you can see how these things go.

1) The Last 500 Years in About 4,000 Words

The Rise & Decline of the Dutch Empire and the Dutch Guilder

- **In the 1500-1600 period the Spanish empire was the pre-eminent economic empire in the "Western" world while the Chinese empire under the Ming Dynasty was the most powerful empire in the "Eastern" world, even more powerful than the Spanish empire** (see the green dashed line and the red solid line in chart 2). The Spanish got rich by taking their ships and military power around the world, seizing control of vast areas (13% of the landmass of the earth!) and extracting valuable things from them, most importantly gold and silver which were the money of the time. As shown by the orange line in the chart of the relative standing of the great empires, the Dutch gained power as Spanish power was waning. At

[10] We show where key indicators were relative to their history by averaging them across the cases. The chart is shown such that a value of "1" represents the peak in that indicator relative to history and "0" represents the trough. The timeline is shown in years with "0" representing roughly when the country was at its peak (i.e., when the average across gauges was at its peak). In the rest of this section, we walk through each of the stages of the archetype in more detail. While the charts show the countries that produced global reserve currencies, we'll also heavily reference China, which was a dominant empire for centuries, though it never established a reserve currency.

the time Spain controlled the small area we now call Holland. **When the Dutch became powerful enough in 1581, they overthrew the Spanish and went on to eclipse both the Spanish and the Chinese as the world's richest empire from around 1625 to their collapse in 1780.** The Dutch empire reached its peak around 1650 in what was called the Dutch Golden Age. This period was one of great globalization as ships that could travel around the world to gain the riches that were out there flourished, and the Dutch, with their great shipbuilding and their economic system, were ahead of others in using ships, economic rewards, and military power to build their empire. Holland (as we now call it) remained the richest power for about 100 years. How did that happen?

- **The Dutch were superbly educated people who were very inventive**—in fact they came up with 25% of all major inventions in the world at their peak in the 17th century. **The two most important inventions they came up with were 1) ships that were uniquely good that could take them all around the world, which, with the military skills that they acquired from all the fighting they did in Europe, allowed them to collect great riches around the world, and 2) the capitalism that fueled these endeavors.**
- **Not only did the Dutch follow a capitalist approach to resource allocation, they invented capitalism.** By capitalism I mean public debt and equity markets. Of course production existed before, but that is not capitalism, and of course trade existed before, but that is not capitalism, and of course private ownership existed before, but that is not capitalism. By capitalism I mean the ability of large numbers of people to collectively lend money and buy ownership in money-making endeavors. **The Dutch created that when they invented the first listed public company (the Dutch East India Company) and the first stock exchange in 1602 and when they built the first well-developed lending system in which debt could more easily be created.**
- **They also created the world's first reserve currency.** The Dutch guilder was the first "world reserve currency" other than gold and silver because it was the first empire to extend around much of the world and to have its currency so broadly accepted. Fueled by these qualities and strengths, the Dutch empire continued to rise on a relative basis until around 1700 when the British started to grow strongly.
- **The numerous investment market innovations of the Dutch and their successes in producing profits attracted investors, which led to Amsterdam becoming the world's leading financial center**; the Dutch government channeled money into debt and some equity investments in various businesses, the most important of which was the Dutch East India Company.
- **At this time of prosperity, other countries grew in power too. As other countries became more competitive, the Dutch empire became more costly and less competitive, and it found maintaining its empire less profitable and more challenging. Most importantly the British got stronger economically and militarily in the classic ways laid out in Chapter 1. Before they had become clear competitors they had military partnerships during most of the 80+ years leading up to the Fourth Anglo-Dutch War. That changed over time as they bumped into each other in the same markets. The Dutch and British had lots of conflicts over economic issues.** For example, the English made a law that only English ships could be used to import goods into England, which hurt Dutch shipping companies that had a big business of shipping others' goods to England, which led to the English seizing Dutch ships and expanding the British East India Company. Typically before all-out war is declared there is about a decade of these sorts of economic, technological, geopolitical, and capital wars when the conflicting powers approach comparability and test and try to intimidate each other's powers. At the time the British came up with military inventions and built more naval strength, and they continued to gain relative economic strength.
- As shown in the chart of relative standing of empires shown above, **around 1750 the British became a stronger power than the Dutch, particularly economically and militarily, both because the British (and French) became stronger and because the Dutch became weaker. As is classic the Dutch a) became more indebted, b) had a lot of internal fighting over wealth (between its states/provinces, between the rich and the poor, and between political factions)[11], and c) had a weakened military—so the Dutch were weak and divided, which made them vulnerable to attack.**
- **As is typical, the rising great power challenged the existing leading power in a war to test them both economically and militarily.** The English hurt the Dutch economically by hurting their shipping business with other countries. The British attacked the Dutch. Other competing countries, most importantly

[11] A good example of this is the popularity of the Patriot movement in the Netherlands around this time: Encyclopedia Britannica, The Patriot movement, https://www.britannica.com/place/Netherlands/The-18th-century#ref414139

France, took this as an opportunity to grab shipping business from the Dutch. That war, known as the Fourth Anglo-Dutch War, lasted from 1780 to 1784. The British won it handily both financially and militarily. That bankrupted the Dutch and caused Dutch debt and equities, the Dutch guilder, and the Dutch empire to collapse. In the next section we will look at that collapse up close.

- **At that time, in the late 18th century, there was a lot of fighting between countries with various shifting alliances within Europe.** While similar fights existed around the world as they nearly always do, the only reason I'm focusing on these fights is because I'm focusing just on the leading powers and these were the leading two. After the British defeated the Dutch, Great Britain and its allies (Austria, Prussia, and Russia) continued to fight the French led by Napoleon in the Napoleonic Wars. **Finally, after around a quarter-century of frequent fighting since the start of the French Revolution, the British and its allies won in 1815.**

The Rise & Decline of the British Empire and the British Pound

- **As is typical after wars, the winning powers (most notably the UK, Russia, Austria, and Prussia) met to agree on the new world order.** That meeting was called the Congress of Vienna. In it the winning powers re-engineered the debt, monetary, and geopolitical systems and created a new beginning as laid out in the Treaty of Paris. **That set the stage for Great Britain's 100-year-long "imperial century" during which Great Britain became the unrivaled world power, the British pound became the world's dominant currency, and the world flourished.**
- **As is typical, following the period of war there was an extended period—in this case 100 years—of peace and prosperity because no country wanted to challenge the dominant world power and overturn the world order that was working so well.** Of course during these 100 years of great prosperity there were bad economic periods along the lines of what we call recessions and which used to be called panics (e.g., the Panic of 1825 in the UK, or the Panics of 1837 and 1873 in the US) and there were military conflicts (e.g., the Crimean War between Russia on one side and the Ottoman empire with a coalition of Western European powers as allies on the other), but they were not significant enough to change the big picture of this being a very prosperous and peaceful period with the British on top.
- **Like the Dutch before them, the British followed a capitalist system to incentivize and finance people to work collectively, and they combined these commercial operations with military strength to exploit global opportunities in order to become extremely wealthy and powerful.** For example the British East India Company replaced the Dutch East India Company as the world's most economically dominant company and the company's military force became about twice the size of the British government's standing military force. That approach made the British East India Company extremely powerful and the British people very rich and powerful. Additionally, **at the same time, around 1760, the British created a whole new way of making things and becoming rich while raising people's living standards. It was called the Industrial Revolution. It was through machine production**, particularly propelled by the steam engine. **So, this relatively small country of well-educated people became the world's most powerful country by combining inventiveness, capitalism, great ships and other technologies that allowed them to go global, and a great military to create the British empire that was dominant for the next 100 years.**
- **Naturally London replaced Amsterdam as the world's capital markets center and continued to innovate financial products.**
- **Later in that 100-year peaceful and prosperous period, from 1870 to the early 1900s the inventive and prosperous boom continued as the Second Industrial Revolution.** During it human ingenuity created enormous technological advances that raised living standards and made those who developed them and owned them rich.
- **This period was for Great Britain what "the Dutch Golden Age" was for the Dutch about 200 years earlier because it raised the power in all the eight key ways—via excellent education, new inventions and technologies, stronger competitiveness, higher output and trade, a stronger military and financial center, and a more widely used reserve currency.**
- **At this time several other countries used this period of relative peace and prosperity to get richer and stronger by colonizing enormous swaths of the world. As is typical during this phase, other countries copied Britain's technologies and techniques and flourished themselves, producing prosperity and, with**

it, great wealth gaps. For example, during this period there was the invention of steel production, the development of the automobile, and the development of electricity and its applications such as for communications including Alexander Graham Bell's telephone and Thomas Edison's incandescent light bulb and phonograph. This is when the United States grew strongly to become a leading world power. These countries became very rich and their wealth gaps increased. **That period was called "the Gilded Age" in the US, "la Belle Époque" in France, and "the Victorian Era" in England. As is typical at such times the leading power, Great Britain, became more indulgent while its relative power declined, and it started to borrow excessively.**

- **As other countries became more competitive, the British empire became more costly and less profitable to maintain.** Most importantly other European countries and the US got stronger economically and militarily in the classic ways laid out in Chapter 1. As shown in the chart of the standing of empires above, the US became a comparable power economically and militarily around 1900 though the UK retained stronger military power, trade, and reserve currency status, and the US continued to gain relative strength from there.
- **From 1900 until 1914, as a consequence of the large wealth gaps, there became 1) greater arguments about how wealth should be divided within countries and 2) greater conflicts and comparabilities in economic and military powers that existed between European countries. As is typical at such times the international conflicts led to alliances being formed and eventually led to war.** Before the war the conflicts and the alliances were built around money and power considerations. For example, typical of conflicting powers that seek to cut off their enemies' access to money and credit, Germany under Bismarck refused to let Russia sell its bonds in Berlin, which led them to be sold in Paris, which reinforced the French-Russian alliance. The wealth gap in Russia led it to tumble into revolution in 1917 and out of the war, which is a whole other dramatic story about fighting over wealth and power that is examined in Part 2 of this book. Similar to the economically motivated shipping conflict between the British and the Dutch, Germany sank five merchant ships that were going to England in the first years of the war. That brought the United States into the war. Frankly, the complexities of the situations leading up to World War I are mind-boggling, widely debated among historians, and way beyond me.
- **That war, which was really the first world war because it involved countries all around the world because the world had become global, lasted from 1914 until 1918 and cost the lives of an estimated 8.5 million soldiers and 13 million civilians. As it ended, the Spanish flu arrived, killing an estimated 20-50 million people over two years. So 1914-20 was a terrible time.**

The Rise of the American Empire and the US Dollar After World War I[12]

- **As is typical after wars, the winning powers—in this case the US, Britain, France, Japan, and Italy—met to set out the new world order.** That meeting, called the Paris Peace Conference, took place in early 1919, lasted for six months, and concluded with the Treaty of Versailles. In that treaty the territories of the losing powers (Germany, Austria-Hungary, the Ottoman empire, and Bulgaria) were carved up and put under the controls of the winning empires and the losing powers were put deeply into debt to the winning powers to pay back the winning countries' war costs with these debts payable in gold. The United States was then clearly recognized as a leading power so it played a role in shaping the new world order. In fact the term "new world order" came about in reference to US President Woodrow Wilson's vision for how countries would operate in pursuit of their collective interest through a global governance system (the League of Nations) which was a vision that quickly failed. After World War I the US chose to remain more isolationist while Britain continued to expand and oversee its global colonial empire. The monetary system in the immediate post-war period was in flux. While most countries endeavored to restore gold convertibility, currency stability against gold only came after a period of sharp devaluations and inflation.
- **The large foreign debt burdens placed on Germany set the stage for 1) Germany's post-war inflationary depression from 1920 to 1923 that wiped out the debts and was followed by Germany's strong economic and military recovery, and 2) a decade of peace and prosperity elsewhere, which became the "Roaring '20s."**
- **During that time the United States also followed a classic capitalist approach to resource allocation and New York became a rival financial center to London, channeling debt and investments into various businesses.**
- **Other countries became more competitive and prosperous and increasingly challenged the leading powers. Most importantly Germany, Japan, and the US got stronger economically and militarily in the classic ways laid out in Chapter 1. However, the US was isolationist and didn't have a big colonial empire past its borders so it was essentially out of the emerging conflict. As shown in the chart of the standing of empires above, Germany and Japan both gained in power relative to the UK during this interwar period**, though the UK remained stronger.
- **As is typical, the debts and the wealth gaps that were built up in the 1920s led to the debt bubbles that burst in 1929 which led to depressions, which led to the printing of money, which led to devaluations of currencies and greater internal and external conflicts over wealth and power in the 1930s.** For example, in the United States and the UK, while there were redistributions of wealth and political power, capitalism and democracy were maintained, while in Germany, Japan, Italy, and Spain they were not maintained. Russia played a significant peripheral role in ways I won't delve into. China at the time was weak, fragmented, and increasingly controlled by a rising and increasingly militaristic and nationalistic Japan. To make a long story short, **the Japanese and Germans started to make territorial expansions in the early to mid-1930s, which led to wars in Europe and Asia in the late 1930s that ended in 1945**.
- As is typical, before all-out wars were declared there was about a decade of economic, technological, geopolitical, and capital wars when the conflicting powers approached comparability and tested and tried to intimidate the other powers. While 1939 and 1941 are known as the official start of the wars in Europe and the Pacific, the wars really started about 10 years before that, as economic conflicts that were at first limited progressively grew into World War II. As Germany and Japan became more expansionist economic and military powers, they increasingly competed with the UK, US, and France for both resources and influence over territories.
- **That brought about the second world war which, as usual, was won by the winning countries coming up with new technologies (the nuclear bomb, while the most important, was just one of the newly invented weapons). Over 20 million died directly in the military conflicts, and the total death count was still higher. So 1930-45, which was a period of depression and war, was a terrible time.**

[12] While most people think that the ascent of the US came after World War II, it really started here and went on across both wars—and the seeds of that rise came still earlier from the self-reinforcing upswings in US education, innovation, competitiveness, and economic outcomes over the 19th century.

The Rise of the American Empire and the US Dollar After World War II

- **As is typical after wars, the winning powers—most importantly the US, Britain, and Russia—met to set out the new world order.** While the Bretton Woods Conference, Yalta Conference, and Potsdam Conference were the most noteworthy, several other meetings occurred that shaped the new world order, which included carving up the world and redefining countries and areas of influence and establishing a new money and credit system. In this case, the world was divided into the US-controlled capitalist/democratic countries and Russia-controlled communist and autocratically controlled countries, each with their own monetary systems. Germany was split into pieces, with the United States, Great Britain, and France having control of the West and Russia having control of the East. Japan was under US control and China returned to a state of civil war, mostly about how to divide the wealth, which was between communists and capitalists (i.e., the Nationalists). Unlike after World War I when the United States chose to be relatively isolationist, after World War II the United States took the primary leadership role as it had most of the economic, geopolitical, and military responsibility.
- **The US followed a capitalist system. The new monetary system of the US-led countries had the dollar linked to gold and had most other countries' currencies tied to the dollar. This system was followed by over 40 countries.** Because the US had around two-thirds of the world's gold then and because the US was much more powerful economically and militarily than any other country, this monetary system has worked best and carried on until now. As for the other countries that were not part of this system—most importantly Russia and those countries that were brought into the Soviet Union and the satellite countries that the Soviets controlled—they were built on a much weaker foundation that eventually broke down. Unlike after World War I, when the losing countries were burdened with large debts, countries that were under US control, including the defeated countries, received massive financial aid from the US via the Marshall Plan. **At the same time the currencies and debts of the losing countries were wiped out, with those holding them losing all of their wealth in them. Great Britain was left heavily indebted from its war borrowings and faced the gradual end of the colonial era which would lead to the unraveling of its empire which was becoming uneconomic to have.**
- During this post-World War II period the United States, its allies, and the countries that were under its influence followed a classic capitalist-democratic approach to resource allocation. **New York flourished as the world's pre-eminent financial center, and a new big debt and capital markets cycle began. That produced what has thus far been a relatively peaceful and prosperous 75-year period that has brought us to today.**
- **As is typical of this peaceful and prosperous part of the cycle, in the 1950-70 period there was productive debt growth and equity market development that were essential for financing innovation and development early on. That eventually led to too much debt being required to finance both war and domestic needs—what was called "guns and butter."** The Vietnam War and the "War on Poverty" occurred in the US. Other countries also became overly indebted and the British indebtedness became over-leveraged which led to a number of currency devaluations, most importantly the breakdown of the Bretton Woods monetary system (though countries like the UK and Italy had already devalued prior to that time). **Then in 1971, when it was apparent that the US didn't have enough gold in the bank to meet the claims on gold that it had put out, the US defaulted on its promise to deliver gold for paper dollars which ended the Type 2 gold-backed monetary system, and the world moved to a fiat monetary system.** As is typical, this fiat monetary system initially led to a wave of great dollar money and debt creation that led to a big wave of inflation that carried until 1980-82 and led to the worst economic downturn since the Great Depression. It was followed by three other waves of debt-financed speculations, bubbles, and busts—1) the 1982 and 2000 money and credit expansion that produced a dot-com bubble that led to the 2000-01 recession, 2) the 2002-07 money and credit expansion that produced a real estate bubble that led to the 2008 Great Recession, and 3) the 2009-19 money and credit expansion that produced the investment bubble that preceded the COVID-19 downturn. **Each of these cycles raised debt and non-debt obligations (e.g., for pensions and healthcare) to progressively higher levels and led the reserve currency central banks of the post-war allies to push interest rates to unprecedented low levels and to print unprecedented amounts of money. Also classically, the wealth, values, and political gaps**

widened within countries, which increases internal conflicts during economic downturns. That is where we now are.

- **During this prosperous post-war period many countries became more competitive with the leading powers economically and militarily.** The Soviet Union/Russia initially followed a communist resource allocation approach as did China and a number of other smaller countries. None of these countries became competitive following this approach. However, the Soviet Union did develop nuclear weapons to become militarily threatening and gradually a number of other countries followed in developing nuclear weapons. These weapons were never used because using them would produce mutually assured destruction. Because of its economic failures the Soviet Union/Russia could not afford to support a) its empire, b) its economy, and c) its military at the same time in the face of US President Ronald Reagan's arms race spending. As a result the Soviet Union broke down in 1991 and abandoned communism. The breakdown of its money/credit/economic system was disastrous for it economically and geopolitically for most of the 1990s. In the 1980-95 period most communist countries abandoned classic communism and the world entered a very prosperous period of globalization and free-market capitalism.
- **In China, Mao Zedong's death in 1976 led Deng Xiaoping to a shift in economic policies to include capitalist elements including private ownership of large businesses, the development of debt and equities markets, great technological and commercial innovations, and even the flourishing of billionaire capitalists—all, however, under the strict control of the Communist Party. As a result of this shift and the simultaneous shift in the world to greater amounts of globalism China grew much stronger in most ways.** For example, since I started visiting China in 1984, the education of its population has improved dramatically, the real per capita income has multiplied by 24, and it has become the largest country in the world in trade (exceeding the US share of world trade), a rival technology leader, the holder of the greatest foreign reserves assets in the world by a factor of over two, the largest lender/investor in the emerging world, the second most powerful military power, and a geopolitical rival of the United States. **And it is growing in power at a significantly faster pace than the United States and other "developed countries."**
- **At the same time, we are in a period of great inventiveness due to advanced information/data management and artificial intelligence supplementing human intelligence with the Americans and Chinese leading the way.** As shown at the outset of Chapter 1, human adaptability and inventiveness has proven to be the greatest force in solving problems and creating advances. Also, because the world is richer and more skilled than ever before, there is a tremendous capacity to make the world better for more people than ever if people can work together to make the whole pie as big as possible and to divide it well. That brings us to where we now are.

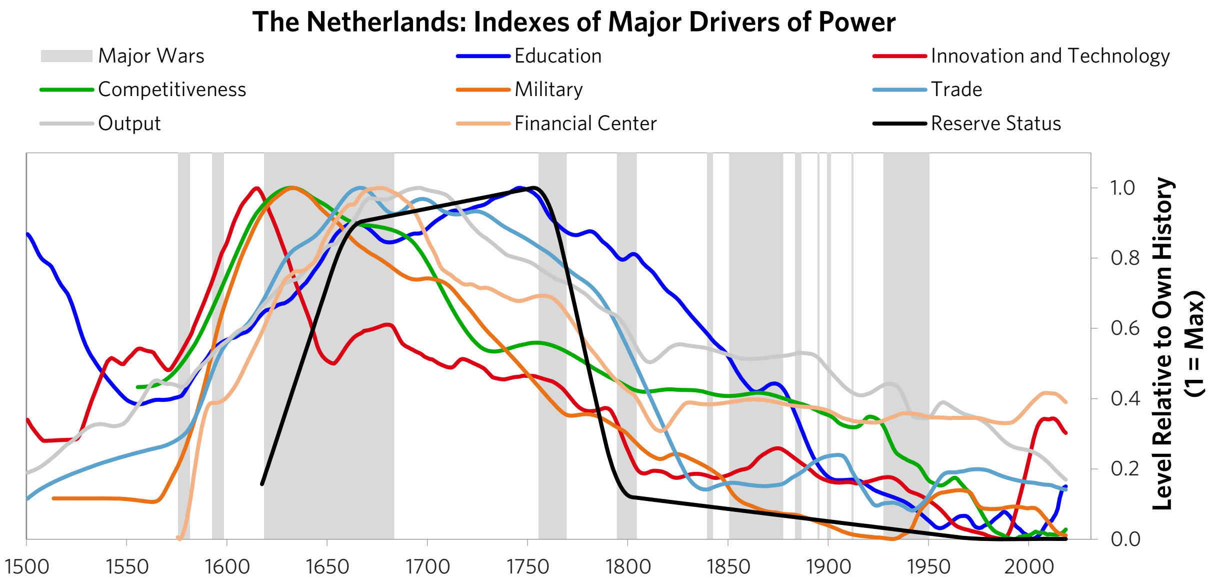
As you can see, all three of these rises and declines followed the classic script laid out in Chapter 1 and summarized in the charts at the beginning of this chapter, though each had its own particular turns and twists.

Now let's look at these cases, especially the declines, more closely.

A Closer Look at the Rises and Declines of the Leading Empires Over the Last 500 Years

The Dutch Empire and the Dutch Guilder

Before we get to the collapse of the Dutch empire and the Dutch guilder let's take a quick look at the whole arc of its rise and decline. While I previously showed you the aggregated power index for the Dutch empire, the chart below shows the eight powers that make it up from the ascent around 1575 to the decline around 1780. **In it, you can see the story behind the rise and decline.**



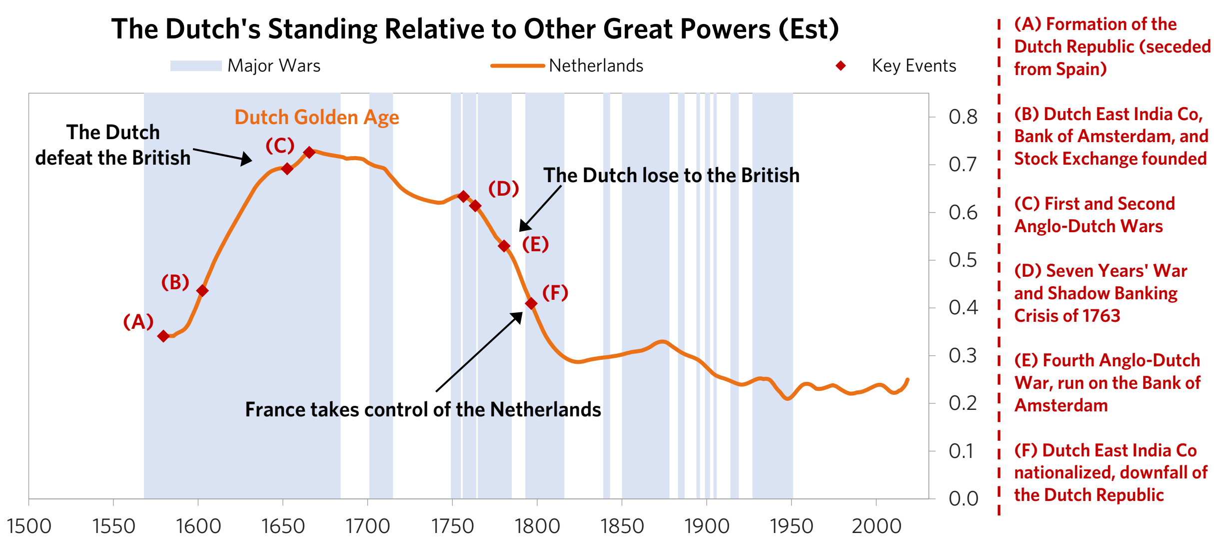
After declaring independence in 1581, the Dutch fought off the Spanish and built a global trading empire that became responsible for over a third of global trade largely via the first mega-corporation, the Dutch East India Company. As shown in the chart above, with a strong educational background the Dutch innovated in a number of areas. They produced roughly 25% of global inventions in the early 17th century,[13] most importantly in shipbuilding, which led to a great improvement in Dutch competitiveness and its share of world trade. Propelled by these ships and the capitalism that provided the money to fuel these expeditions, the Dutch became the largest traders in the world, accounting for about one-third of world trade.[14] As the ships traveled around the world, the Dutch built a strong military to defend them and their trade routes.

As a result of this success they got rich. **Income per capita rose to over twice that of most other major European powers.**[15] They invested more in education. Literacy rates became double the world average. **They created an empire spanning from the New World to Asia, and they formed the first major stock exchange with Amsterdam becoming the world's most important financial center.** The Dutch guilder became the first global reserve currency, accounting for over a third of all international transactions.[16] For these reasons over the course of the late 1500s and 1600s, the Dutch became a global economic and cultural power. They did all of this with a population of only 1-2 million people. Below is a brief summary of the wars they had to fight to build and hold onto their empire. As shown, they were all about money and power.

[13] Rough estimate based on internal calculations
[14] Rough estimate based on internal calculations
[15] Rough estimate based on internal calculations
[16] In this piece, when talking about "the guilder," we generally refer to guilder bank notes, which were used at the Bank of Amsterdam, rather than the physical coin (also called "guilder").

- *Eighty Years' War (1566-1648)*: This was a revolt by the Netherlands against Spain (one of the strongest empires of that era), which eventually led to Dutch independence. The Protestant Dutch wanted to free themselves from the Catholic rule of Spain and eventually managed to become de facto independent. Between 1609 and 1621, the two nations had a ceasefire. Eventually, the Dutch were recognized by Spain as independent in the Peace of Munster, which was signed together with the Treaty of Westphalia, ending both the Eighty Years' War as well as the Thirty Years' War.[17]
- *First Anglo-Dutch War (1652-1654)*: This was a trade war. More specifically, in order to protect its economic position in North America and damage the Dutch trade that the English were competing with, the English Parliament passed the first of the Navigation Acts in 1651 that mandated that all goods from its American colonies must be carried by English ships, which set off hostilities between the two countries.[18]
- *The Dutch-Swedish War (1657–1660)*: This war centered around the Dutch wanting to maintain low tolls on the highly profitable Baltic trade routes. This was threatened when Sweden declared war on Denmark, a Dutch ally. The Dutch defeated the Swedes and maintained the favorable trade arrangement.[19]
- *The Second Anglo-Dutch War (1665–1667)*: England and the Netherlands fought again over another trade dispute, which again ended with a Dutch victory.[20]
- *The Franco-Dutch War (1672-1678) and the Third Anglo-Dutch War (1672-1674)*: This was also a fight over trade. It was between France and England on one side and the Dutch (called the United Provinces), the Holy Roman Empire, and Spain on the other.[21] The Dutch largely stopped French plans to conquer the Netherlands and forced France to reduce some of its tariffs against Dutch trade,[22] but the war was more expensive than previous conflicts, which increased their debts and hurt the Dutch financially.
- *The Fourth Anglo-Dutch War (1780-1784)*: This was fought between the Dutch and the rapidly strengthening British, partially in retaliation for Dutch support of the US in the American Revolution. The war ended in significant defeat for the Dutch, and the costs of the fighting and eventual peace helped usher in the end of the guilder as a reserve currency.[23]

The chart below shows the Dutch power index with the key war periods noted.



[17] Encyclopedia Britannica, Eighty Years' War, https://www.britannica.com/event/Eighty-Years-War
[18] Encyclopedia Britannica, The Anglo-Dutch Wars, https://www.britannica.com/event/Anglo-Dutch-Wars
[19] Israel, *Dutch Primacy in World Trade, 1585-1740*, 219
[20] Encyclopedia Britannica, The Anglo-Dutch Wars, https://www.britannica.com/event/Anglo-Dutch-Wars
[21] Encyclopedia Britannica, The Dutch War, https://www.britannica.com/event/Dutch-War
[22] Israel, *The Dutch Republic: Its Rise, Greatness, and Fall 1477-1806*, 824-825
[23] Encyclopedia Britannica, The Anglo-Dutch Wars, https://www.britannica.com/event/Anglo-Dutch-Wars

As shown, the seeds of Dutch decline were sown in the latter part of the 17th century as they started to lose their competitiveness and became overextended globally trying to support an empire that had become more costly than profitable. Increased debt-service payments squeezed them while their worsening competitiveness hurt their income from trade. Earnings from business abroad also fell. Wealthy Dutch savers moved their cash abroad both to get out of Dutch investments and into British investments, which were more attractive due to strong earnings growth and higher yields.[24] While debt burdens had grown through most of the 1700s,[25] the Dutch guilder remained widely accepted around the world as a reserve currency so it held up solely because of the functionality of and faith in it.[26] (As explained earlier, reserve currency status classically lags the decline of other key drivers of the rise and fall of empires.) As shown by the black line in the first chart above (designating the extent the currency is used as a reserve currency) the guilder remained widely used as a global reserve currency after the Dutch empire started to decline, up until the Fourth Anglo-Dutch War, which began in 1780 and ended in 1784.[27]

The simmering conflict between the rising British and the declining Dutch had escalated after the Dutch traded arms with the colonies during the American Revolution.[28] In retaliation the English delivered a massive blow to the Dutch in the Caribbean and ended up controlling Dutch territory in the East and West Indies.[29] The war required heavy expenditure by the Dutch to rebuild their dilapidated navy: the Dutch East India Company lost half its ships[30] and access to its key trade routes while heavily borrowing from the Bank of Amsterdam to stay alive. And the war forced the Dutch to accumulate large debts beyond these.[31]

The main reason the Dutch lost the war was that they let their navy become much weaker than Britain's because of disinvestment into military capacity in order to spend on domestic indulgences.[32] In other words, they tried to finance both guns and butter with their reserve currency, didn't have enough buying power to support the guns despite their great ability to borrow due to their having the leading reserve currency, and became financially and militarily defeated by the British who were stronger in both respects.

Most importantly, this war destroyed the profitability and balance sheet of the Dutch East India Company.[33] While it was already in decline due to its reduced competitiveness, it ran into a liquidity crisis after a collapse in trade caused by British blockades on the Dutch coast and in the Dutch East Indies.[34] As shown below, it suffered heavy losses during the Fourth Anglo-Dutch War and began borrowing aggressively from the Bank of Amsterdam because it was too systemically important for the Dutch government.

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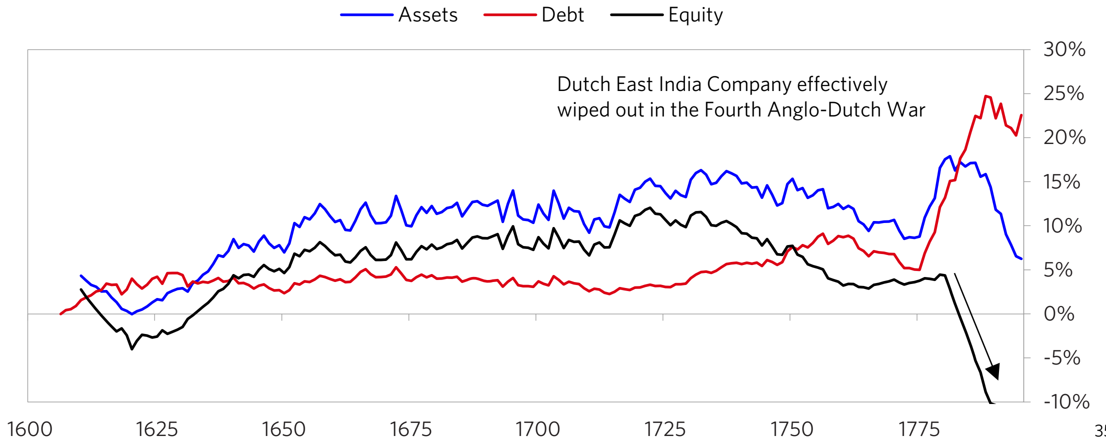
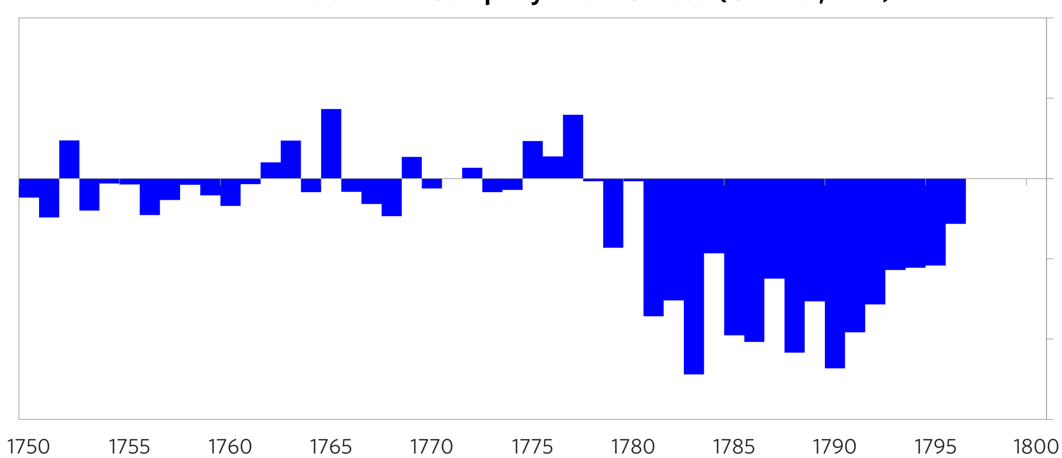
[24] There was a general rise in foreign investment by the Dutch during this period. Investments in UK assets offered high real returns. Examples include Dutch purchases of stocks in the British East India Company, and the City of London selling term annuities (bonds) to Dutch investors. For a further description, see Hart, Jonker, and van Zanden, *A Financial History of the Netherlands*, 56-58.
[25] Hart, Jonker, and van Zanden, *A Financial History of the Netherlands*, 20-21
[26] Quinn & Roberds, "Death of a Reserve Currency," 13
[27] Encyclopedia Britannica, The Anglo-Dutch Wars, https://www.britannica.com/event/Anglo-Dutch-Wars
[28] Encyclopedia Britannica, The Anglo-Dutch Wars, https://www.britannica.com/event/Anglo-Dutch-Wars
[29] Encyclopedia Britannica, The Anglo-Dutch Wars, https://www.britannica.com/event/Anglo-Dutch-Wars
[30] de Vries & van der Woude, *The First Modern Economy*, 455
[31] de Vries & van der Woude, *The First Modern Economy*, 126
[32] de Vries & van der Woude, *The First Modern Economy*, 685-686
[33] de Vries & van der Woude, *The First Modern Economy*, 455
[34] de Vries & van der Woude, *The First Modern Economy*, 455-456 & https://www.britannica.com/event/Anglo-Dutch-Wars

Dutch East India Company Balance Sheet (%GDP)



As shown in the chart below the Dutch East India Company, which was essentially the Dutch economy and military wrapped into a company, started to make losses in 1780, which became enormous during the Fourth Anglo-Dutch War.

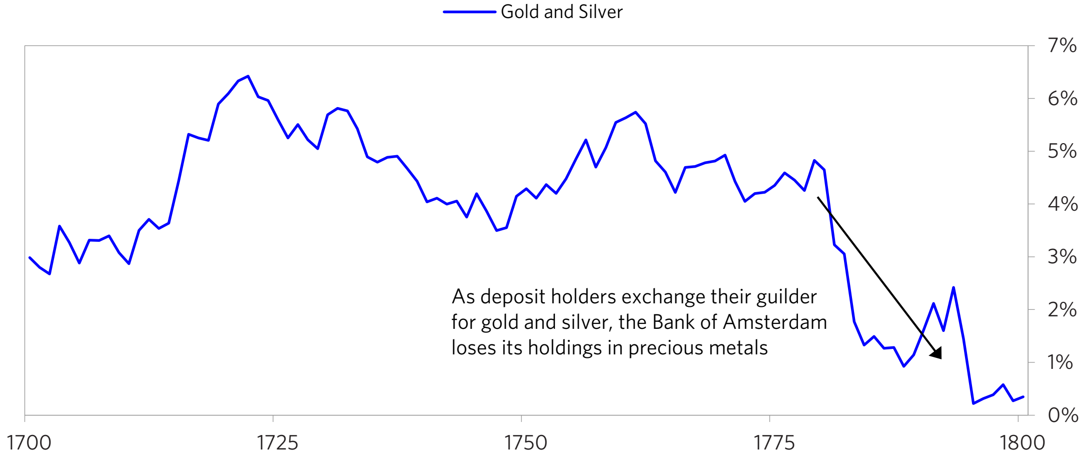
Dutch East India Company Profit & Loss (Guilder, Mln)



As deposit holders at the Bank of Amsterdam realized the bank was "lending" freshly printed guilders to save the Dutch East India Company, there was a run on the Bank of Amsterdam.[36] As investors pulled back and borrowing needs increased, gold was preferred to paper money, those with paper money exchanged it for gold at the Bank of Amsterdam, and it became clear that there wouldn't be enough gold. The run on the bank and the run on the guilder accelerated throughout the war, as it became increasingly apparent that the Dutch would lose and depositors could anticipate that the bank would print more money and have to devalue the guilder.[37] Guilders were backed by precious metals, but as the supply of guilders rose and investors could see what was happening they turned their guilders in for gold and silver so the ratio of claims on gold and silver rose, which caused more of the same until the Bank of Amsterdam was wiped out of its precious metal holdings. The supply of guilders continued to soar while demand for them fell.

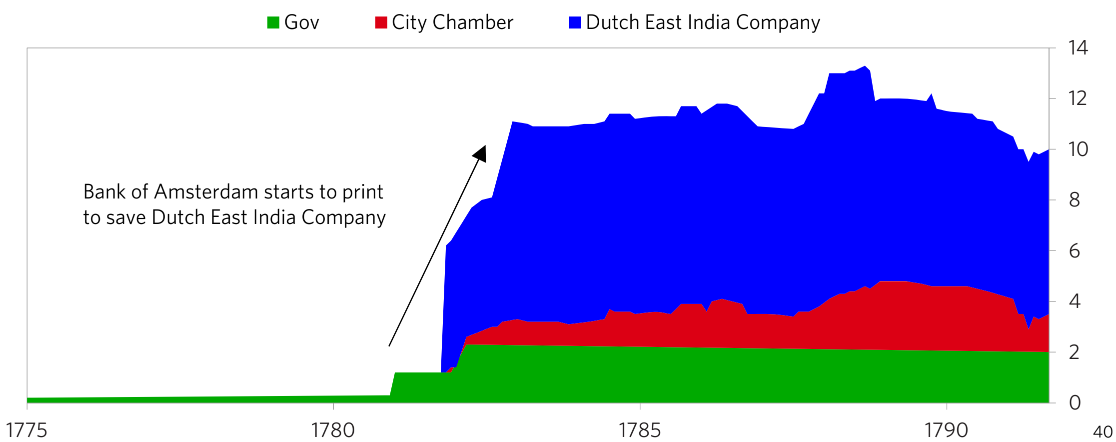
[35] This chart only shows the financial results from the Dutch East India Company reported "in patria," e.g., the Netherlands. It does not include the part of the revenue and debt from its operations in Asia but does include its revenues from goods it retrieved in Asia and sold in Europe.
[36] Quinn & Roberds, "Death of a Reserve Currency," 17
[37] "Guilder" in this case refers to devaluing bank deposits in guilder from the Bank of Amsterdam, not physical coin. For details on the run, see Quinn & Roberds, "Death of a Reserve Currency," 16.

Bank of Amsterdam Holdings (%GDP)



The Bank of Amsterdam had no choice since the company was too important to allow to fail both because of its significance to the economy and its outstanding debt in the Dutch financial system, so the Bank of Amsterdam began "lending" large sums of newly printed guilders to the company. During the war, policy makers also used the bank to lend to the government.[38] The chart below shows this explosion of loans on the bank's balance sheet through the Fourth Anglo-Dutch War (note: there was about 20 million bank guilder outstanding at the start of the war).[39]

Bank of Amsterdam Loans Outstanding (Guilder, Mln)



[40]

Interest rates rose and the Bank of Amsterdam had to devalue, undermining the credibility of the guilder as a storehold of value.[41] Over the years, and at this moment of crisis, the bank had created many more "paper money" claims on the hard money in the bank than could be met so that led to a classic run on the Bank of Amsterdam, which led to the collapse of the Dutch guilder.[42] It also led to the British pound clearly replacing the Dutch guilder as the leading reserve currency.

[38] Quinn & Roberds, "Death of a Reserve Currency," 17-18
[39] Quinn & Roberds, "Death of a Reserve Currency," 16
[40] Quinn & Roberds, "Death of a Reserve Currency," 34
[41] Quinn & Roberds, "Death of a Reserve Currency," 15-16
[42] The Bank of Amsterdam was ahead its time and used ledgers instead of real "paper money." See Quinn & Roberds, "The Bank of Amsterdam Through the Lens of Monetary Competition," 2

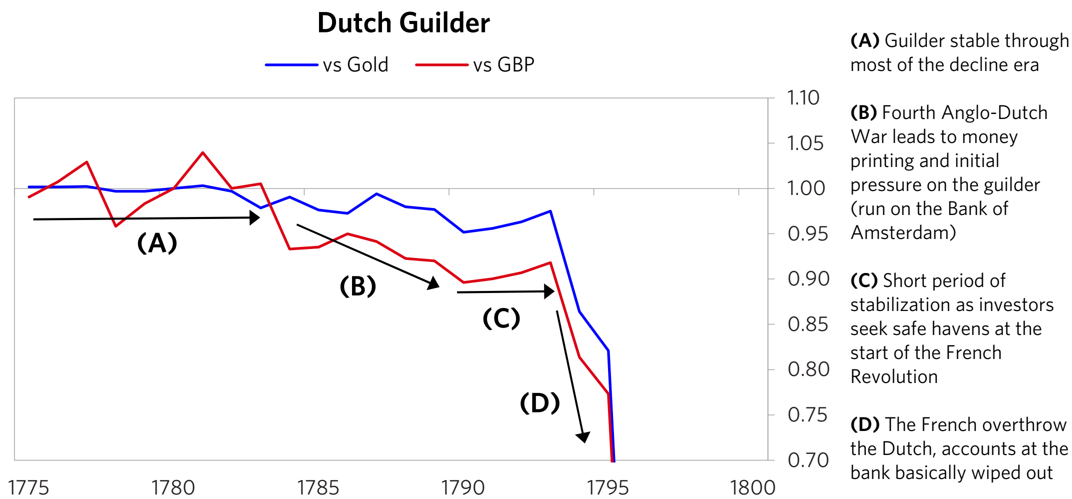
What happened to the Dutch was classic as described in both Chapter 1's very brief summary of why empires rise and fall and in Chapter 2's description of how money, credit, and debt work. **As for the money, credit, and debt cycle, the Bank of Amsterdam started with a Type 1 monetary system that morphed into a Type 2 monetary system.** It started with just coins that led to the bank having a 1:1 backing of paper money by metal, so the bank provided a more convenient form of hard money. The claims on money were then allowed to rise relative to the hard money to increasingly become a Type 2 monetary system, in which paper money seems to acquire a value itself as well as a claim on hard money (coins), though the money wasn't fully backed. This transition usually happens at times of financial stress and military conflict. And it is risky because the transition decreases trust in the currency and adds to the risk of a bank-run-like dynamic. While we won't go deeply into the specifics of the war, the steps taken by policy makers during the period led to the loss of Dutch financial power so are worth describing because they are so archetypical when there is a clear shift in power and the losing country has a bad income statement and balance sheet. This period was like that and ended with the guilder supplanted by the pound as the world's reserve currency and London succeeding Amsterdam as the world's financial center.

Deposits (i.e., holdings of short-term debt) of the Bank of Amsterdam, which had been a reliable storehold of wealth for nearly two centuries, began to trade at large discounts to guilder coins (which were made of gold and silver).[43] The bank used its holdings of other countries' debt (i.e., its currency reserves) to buy its currency on the open market to support the value of deposits, but it lacked adequate foreign currency reserves to support the guilder.[44] Accounts backed by coin held at the bank plummeted from 17 million guilder in March 1780 to only 300,000 in January 1783 as owners of these gold and silver coins wanted to get them rather than continue to hold the promises of the Bank of Amsterdam to deliver them.[45]

The running out of money by the Bank of Amsterdam marked the end of the Dutch empire and the guilder as a reserve currency. In 1791 the bank was taken over by the City of Amsterdam,[46] and in 1795 the French revolutionary government overthrew the Dutch Republic, establishing a client state in its place.[47] After being nationalized in 1796, rendering its stock worthless, the Dutch East India Company's charter expired in 1799.[48]

The following charts show the exchange rates between the guilder and the pound/gold; as it became clear that the bank no longer had any credibility and that the currency was no longer a good storehold of wealth, investors fled to other assets and currency.[49]

[43] Quinn & Roberds, "Death of a Reserve Currency," 19, 26
[44] Quinn & Roberds, "Death of a Reserve Currency," 19-20
[45] Quinn & Roberds, "Death of a Reserve Currency," 16
[46] Quinn & Roberds, "Death of a Reserve Currency," 24
[47] de Vries & van der Woude, *The First Modern Economy*, 685-686
[48] Encyclopedia Britannica, The Dutch East India Company, https://www.britannica.com/topic/Dutch-East-India-Company; also see de Vries & van der Woude, *The First Modern Economy*, 463-464
[49] Historical data suggests that by 1795, bank deposits were trading at a -25% discount to actual coin. Quinn & Roberds, "Death of a Reserve Currency," 26.



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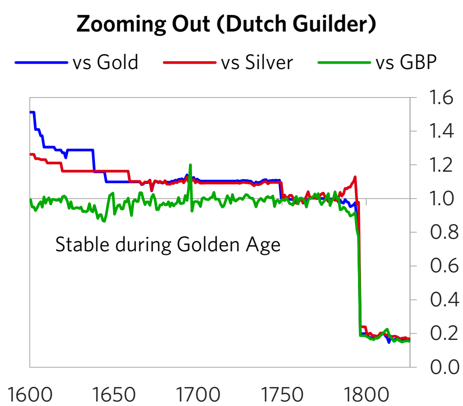
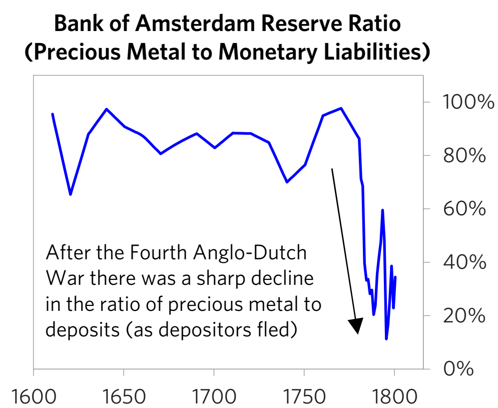
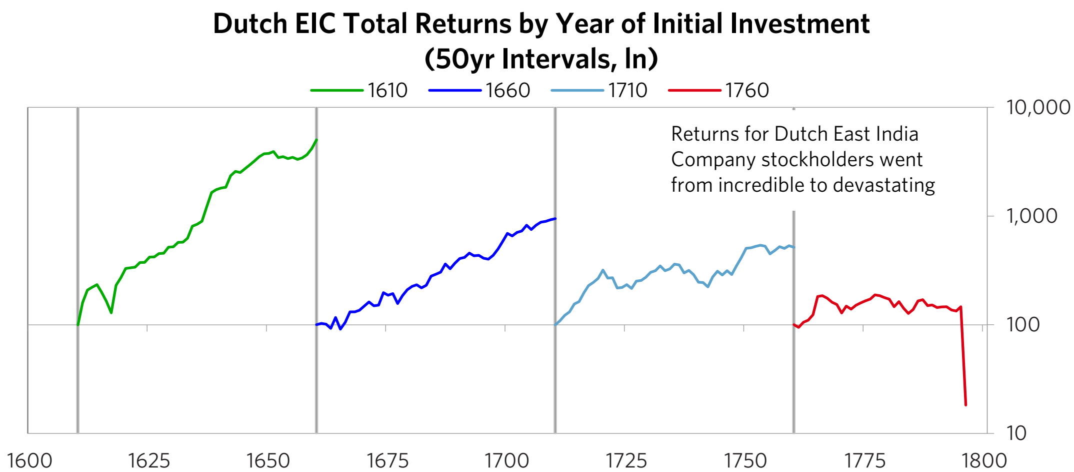


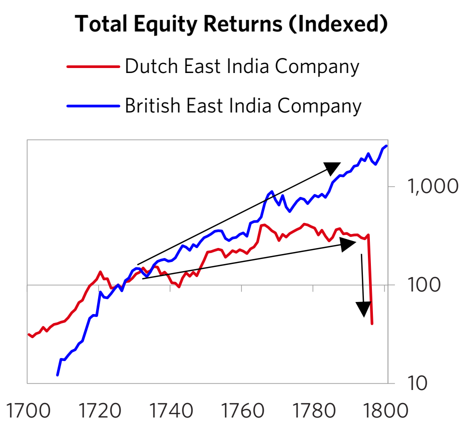


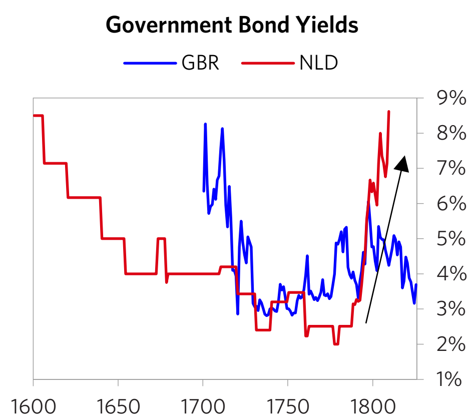
The chart below shows the returns of holding the Dutch East India Company for investors starting in various years. As with most bubble companies, it originally did great, with great fundamentals, which attracted more investors even as its fundamentals started to weaken, but it increasingly got into debt, until the failed fundamentals and excessive debt burdens broke the company.

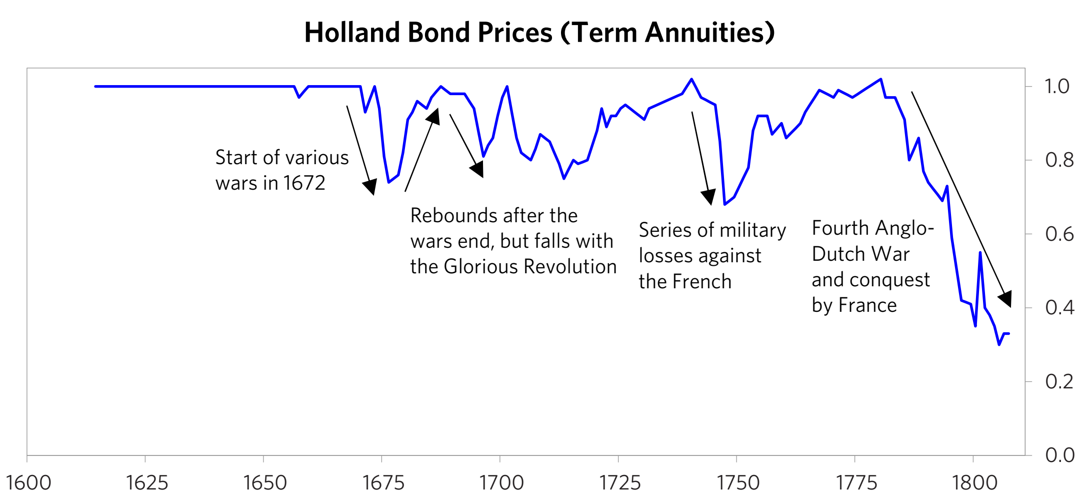
[50] Note: To fully represent the likely economics of a deposit holder at the Bank of Amsterdam, we assumed depositors each received their pro-rated share of precious metal still in the bank's vaults when it was closed (that was roughly 20% of the fully backed amount, thus the approximately 80% total devaluation).



As is typical, with the decline in power of the leading empire and the rise in power of the new empire, the returns of investment assets in the declining empire fell relative to the returns of investing in the rising empire. For example, as shown below, the returns on investments in the British East India Company far exceeded those in the Dutch East India Company, and the returns of investing in Dutch government bonds were terrible relative to the returns of investing in English government bonds. This was reflective of virtually all investments in these two countries.







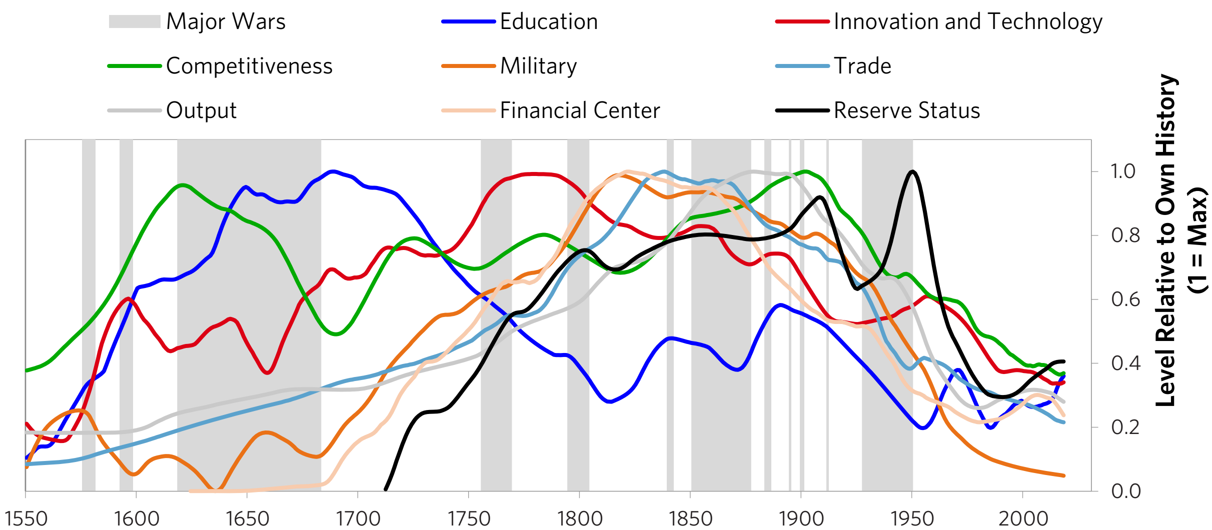
[51]

[51] Gelderblom & Jonker, "Exploring the Market for Government Bonds in the Dutch Republic (1600-1800)," 16

The British Empire and the British Pound

Before we get to the collapse of the British empire and the British pound, let's take a quick look at the whole arc of its rise and decline. While I previously showed you the aggregated power index for the British empire, the chart below shows the eight powers that make it up. It shows these from the ascent around 1700 to the decline in the early 1900s. **In it, you can see the story behind the rise and decline.**

United Kingdom: Index of Major Drivers of Power



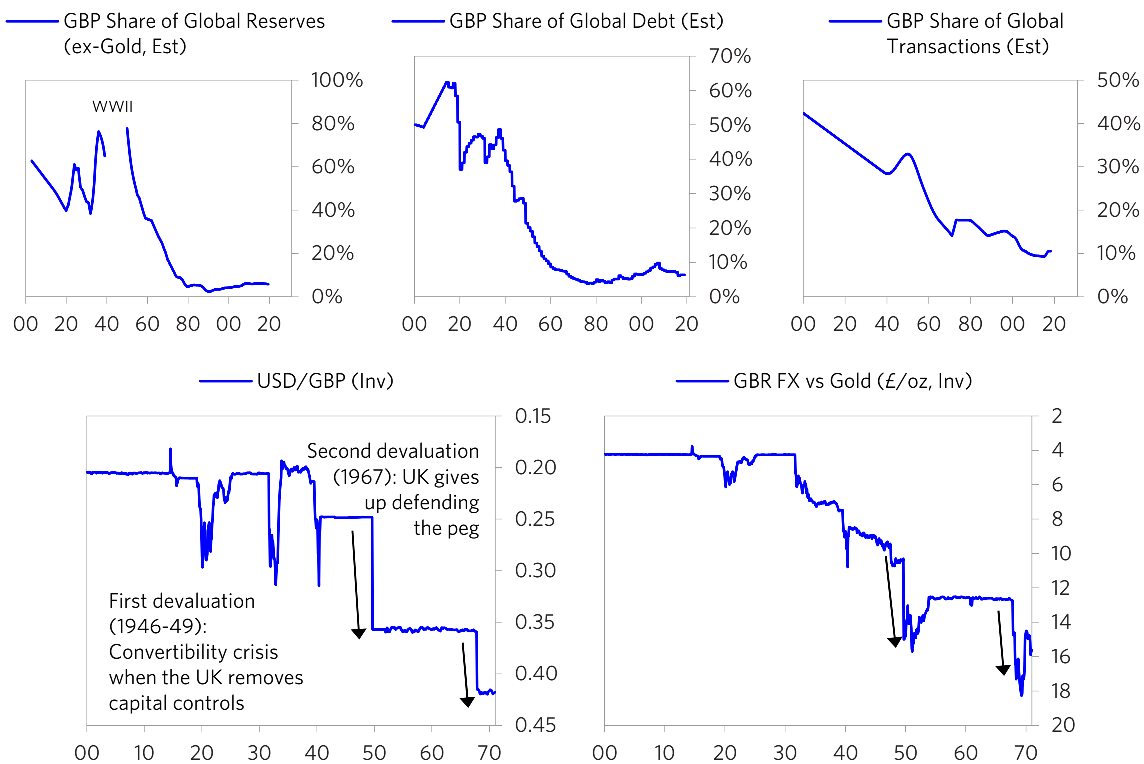
The British empire's rise began before 1600, with steadily strengthening competitiveness, education, and innovation/technology—the classic leading factors for a power's rise. As shown and previously described, in the late 1700s the British military power became pre-eminent and it beat its leading economic competitor and the leading reserve currency empire of its day in the Fourth Anglo-Dutch War. It also successfully fought other European rivals like France in a number of conflicts that culminated in the Napoleonic Wars in the early 1800s. Then it became extremely rich by being the dominant economic power. At its peak in the 19th century, the UK's 2.5% of the world's population produced 20% of the world's income, and the UK controlled over 40% of global exports. This economic strength grew in tandem with a strong military, which, along with the privately driven conquests of the British East India Company, drove the creation of a global empire upon which "the sun never set," controlling over 20% of the world's land mass and 25% of the global population prior to the outbreak of World War I. With a lag, as is classic, its capital—London—emerged as the global financial center and its currency—the pound—emerged as the leading global reserve currency. As is typical its reserve status remained well after other measures of power started declining in the late 19th century and as powerful rivals like the US and Germany rose. As shown in the chart above, almost all of the British empire's relative powers began to slip as competitors emerged around 1900. At the same time wealth gaps were large and internal conflicts over wealth were emerging.

As you know, **despite winning both World War I and World War II the British were left with large debts, a huge empire that was more costly than profitable, numerous rivals that were more competitive, and a population that had big wealth gaps which led to big political gaps.**

As I previously summarized what happened in the 1914 to post-World War II period, I will skip ahead to the end of World War II in 1945 and the start of the new world order that we are now in. I will be focusing on how the pound lost its reserve currency status.

Although the US had overtaken the UK militarily, economically, politically, and financially long before the end of World War II, it took more than 20 years after the war for the British pound to fully lose its status as an international reserve currency. Just like the world's most widely spoken language becomes so deeply woven into the fabric of international dealings that it is difficult to replace, the same is true of the world's most widely used reserve currency. In the case of the British pound, other countries' central banks continued to hold a sizable share of their reserves in pounds through the 1950s, and about half of all international trade was denominated in sterling in 1960. **Still, the pound began to lose its status right at the end of the war** because smart folks could see the UK's increased debt load, its low net reserves, and the great contrast with the United States' financial condition (which emerged from the war as the world's pre-eminent creditor and with a very strong balance sheet).

The decline in the British pound was a chronic affair that happened through several significant devaluations over many years. After efforts at making the pound convertible failed in 1946-47, the pound devalued by 30% against the dollar in 1949. Though this worked in the short term, over the next two decades the declining competitiveness of the British led to repeated balance of payments strains that culminated with central banks actively selling sterling reserves to accumulate dollar reserves following the devaluation of 1967. Around this time the deutschmark began to re-emerge and took the pound's place as the second-most widely held reserve currency. The charts below paint the picture.



On the following pages we will cover in greater detail the specific stages of this decline, firstly with the convertibility crisis of 1947 and the 1949 devaluation, secondly with the gradual evolution of the pound's status relative to the dollar through the 1950s and early 1960s, and thirdly with the balance of payments crisis of 1967 and subsequent devaluation. We will focus in on the currency crises.

1) The Pound's Suspended Convertibility in 1946 and Its Devaluation in 1949

The 1940s are frequently referred to as "crisis years"[52] for sterling. The war required the UK to borrow immensely from its allies and colonies,[53] and those obligations were required to be held in sterling. These war debts financed about a third of the war effort. When the war ended, the UK could not meet its debt obligations without the great pain of raising taxes or cutting government spending, so it necessarily mandated that its debt assets (i.e., its bonds) could not be proactively sold by its former colonies.

As such, **the UK emerged from World War II with strict controls on foreign exchange. The Bank of England's approval was required to convert pounds into dollars**, whether to buy US goods or purchase US financial assets (i.e., current and capital account convertibility was suspended). **To ensure the pound would function as an international reserve currency in the post-war era, and to prepare the global economy for a transition to the Bretton Woods monetary system, convertibility would have to be restored. However, because the US dollar was now the international currency of choice, the global economy was experiencing a severe shortage of dollars at the time.** Virtually all Sterling Area countries (the UK and the Commonwealth countries) relied on inflows from selling goods and services and from attracting investments in dollars to get the dollars they needed while they were forced to hold their sterling-denominated bonds. The UK experienced acute balance of payments problems due to its poor external competitiveness, a domestic fuel crisis, and large war debts undermining faith in the pound as a storehold of wealth. **As a result, the first effort to restore convertibility in 1947 failed completely, and it was soon followed by a large devaluation (of 30%) in 1949, to restore some competitiveness.**[54]

Coming into the period, there were concerns that too quick a return to convertibility would result in a run on the pound, as savers and traders shifted to holding and transacting in dollars all at once. However, the US was anxious for the UK to restore convertibility as soon as possible as restrictions on convertibility were reducing US export profits and reducing liquidity in the global economy.[55] The Bank of England was also eager to remove capital controls in order to restore the pound's role as a global trading currency, increase financial sector revenues in London, and encourage international investors to continue saving in sterling[56] (a number of governments of European creditors, including Sweden, Switzerland, and Belgium, were having increasing conflicts with the UK over the lack of convertibility).[57] **An agreement was reached after the war, under which the UK would reintroduce convertibility swiftly, and the US would provide the UK with a loan of \$3.75 billion[58] (about 10% of UK GDP).** While the loan offered some buffer against a potential run on the pound, it did not change the underlying imbalances in the global economy.

When partial convertibility was introduced in July 1947, the pound came under considerable selling pressure. As the UK and US governments were against devaluation (as memories of the competitive devaluations in the 1930s were fresh on everyone's minds),[59] **the UK and other Sterling Area countries turned to austerity and reserve sales to maintain the peg to the dollar**. Restrictions were imposed on the import of "luxury goods" from the US, defense expenditure was slashed, dollar and gold reserves were drawn down, and agreements were made between sterling economies not to diversify their reserve holdings to the dollar.[60] Prime Minister Clement Attlee gave a dramatic speech on August 6, 1947, calling for the spirit of wartime sacrifices to be made once again in order to defend the pound:

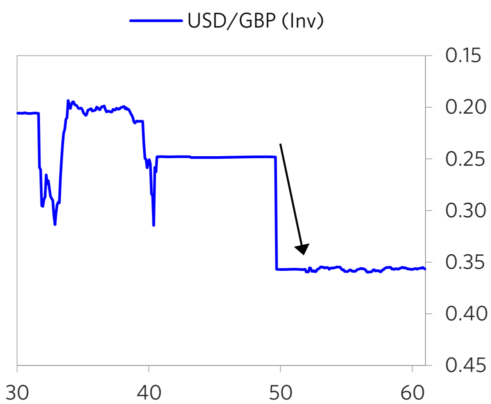
> *"In 1940 we were delivered from mortal peril by the courage, skill, and self-sacrifice of a few. Today we are engaged in another battle for Britain. This battle cannot be won by the few. It demands a united*

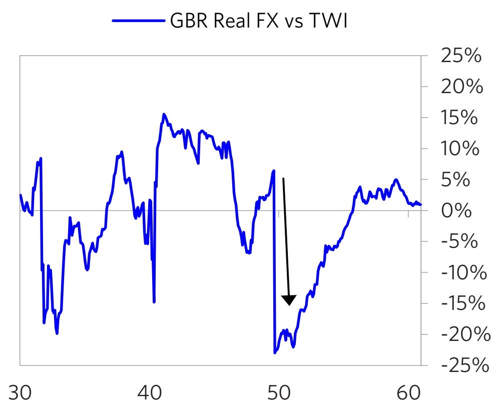
[52] For example, see Catherine Schenk, *The Decline of Sterling: Managing the Retreat of an International Currency, 1945–1992*, 37 (hereafter referred to as Schenk, *Decline of Sterling*)
[53] See Schenk, *Decline of Sterling,* 39
[54] For an overview of the convertibility crisis and devaluation, see Schenk, *Decline of Sterling,* 68-80; Alec Cairncross & Barry Eichengreen, *Sterling in Decline: The Devaluations of 1931, 1949, and 1967*, 102-147 (hereafter referred to as Cairncross & Eichengreen, *Sterling in Decline*).
[55] Schenk, *Decline of Sterling,* 44
[56] Schenk, *Decline of Sterling,* 31
[57] Alex Cairncross, *Years of Recovery: British Economic Policy 1945-51*, 124-126
[58] Schenk, *Decline of Sterling,* 63
[59] Schenk, *Decline of Sterling*, 48
[60] Schenk, *Decline of Sterling,* 62

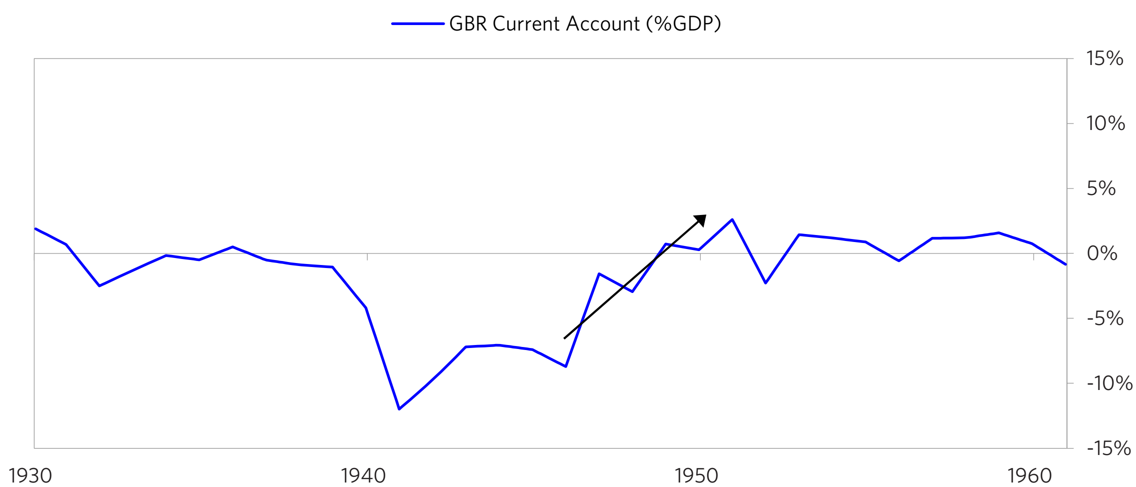
effort by the whole nation. I am confident that this united effort will be forthcoming and that we shall again conquer."[61]

Immediately following the speech, the run on the pound accelerated. Over the next five days, the UK had to spend down $175 million of reserves to defend the peg.[62] **By the end of August, convertibility was suspended, much to the anger of the US and other international investors who had bought up sterling assets in the lead-up to convertibility hoping that they would soon be able to convert those holdings to dollars.** The governor of the National Bank of Belgium even threatened to stop transacting in sterling, requiring a diplomatic intervention.[63]

The devaluation came two years later, as policy makers in both the UK and the US realized that the pound couldn't return to convertibility at the current rate. UK exports were not competitive enough in global markets to earn the foreign exchange needed to support the pound, reserves were dwindling, and the US was unwilling to continue shoring up the pound with low interest rate loans. **An agreement was reached to devalue the pound versus the dollar** in order to boost UK competitiveness, help create a two-way currency market, and speed up a return to convertibility.[64] **In September 1949, the pound was devalued by 30% versus the dollar.** Competitiveness returned, the current account improved, and by the mid-to-late 1950s, full convertibility was restored.[65] The charts below paint the picture.







[61] As quoted in Schenk, *Decline of Sterling,* 62-63
[62] Ibid
[63] Schenk, *Decline of Sterling,* 66-67
[64] For more detail, see Cairncross & Eichengreen, *Sterling in Decline,* 139-155
[65] See also Cairncross & Eichengreen, *Sterling in Decline*, 151-155 for a discussion of other contributing factors

The currency move, which devalued sterling debt, did not lead to a panic out of sterling debt as much as one might have expected especially in light of how bad the fundamentals for sterling debt remained. That is because a very large share of UK assets was held by the US government, which was willing to take the valuation hit in order to restore convertibility, and by Sterling Area economies, such as India and Australia, whose currencies were pegged to the pound for political reasons.[66] These Commonwealth economies, for geopolitical reasons, supported the UK's decision and followed by devaluing their own currencies versus the dollar, which lessened the visibility of the loss of wealth from the devaluation. Still, **the immediate post-war experience made it clear to knowledgeable observers that the pound was vulnerable to more weakness and would not be able to enjoy the same international role it had prior to World War II.**

2) The Failed International Efforts to Support the Pound in the 1950s and 1960s and the Devaluation of 1967

Though the devaluation helped in the short term, over the next two decades, the pound would face recurring balance of payments strains. These strains were very concerning to international policy makers who feared that a collapse in the value of sterling or a rapid shift away from the pound to the dollar in reserve holdings could prove highly detrimental to the new Bretton Woods monetary system (particularly given the backdrop of the Cold War and concerns around communism). **As a result, numerous arrangements were made to try to shore up the pound and preserve its role as a source of international liquidity.** These included the Bilateral Concerté (1961-64), in which major developed world central banks gave support to countries via the Bank of International Settlements, including multiple loans to the UK and the BIS Group Arrangement 1 (1966-71), which provided swaps to the UK to offset future pressure from potential falls in sterling reserve holdings.[67]

In addition to these wider efforts, the UK's status as the head of the Sterling Area let it mandate that all trade within the Sterling Area would continue to be denominated in pounds and all their currencies would be pegged to sterling. As these economies had to maintain a peg to the pound, they continued to accumulate FX reserves in sterling well after other economies had stopped doing so (e.g., Australia kept 90% of its reserves in sterling as late as 1965).[68] Foreign loans issued in the UK during the period were also almost exclusively to the Sterling Area. The result of all this is that for the 1950s and early 1960s, the UK is best understood as a regional economic power and sterling as a regional reserve currency.[69] Yet all these measures didn't fix the problem that the UK owed too much money and was uncompetitive, so it didn't earn enough money to both pay its debts and pay for what it needed to import. Rearrangements were essentially futile stop-gap measures designed to hold back the changing tide. They helped keep the pound stable between 1949 and 1967. Still, sterling needed to be devalued again in 1967.

By the mid-1960s, the average share of central bank reserves held in pounds had fallen to around 20%, while international trade was overwhelmingly denominated in dollars (about half). However, many emerging markets and Sterling Area countries continued to hold about 50% of their reserves in pounds and continued to denominate much of their trade with each other and the UK in sterling. **This effectively ended following a series of runs on the pound in the 1960s. As in many other balance of payments crises, policy makers used a variety of means to try to maintain the currency peg to the dollar, including spending down reserves, raising rates, and using capital controls. In the end they were unsuccessful, and after the UK devalued by 14% versus the dollar in 1967, even Sterling Area countries were unwilling to hold their reserves in pounds, unless the UK guaranteed their underlying value in dollars.**

Throughout the 1960s, the UK was forced to defend the peg to the dollar by selling about half of its FX reserve holdings and keeping rates higher than the rest of the developed world—even though the UK economy was underperforming. In both 1961 and 1964, the pound came under intense selling pressure, and the peg was only maintained by a sharp rise in rates, a rapid acceleration in reserve sales, and the extension of short-term credits from the US and the Bank of International Settlements. By 1966, attempts to defend the peg were being described

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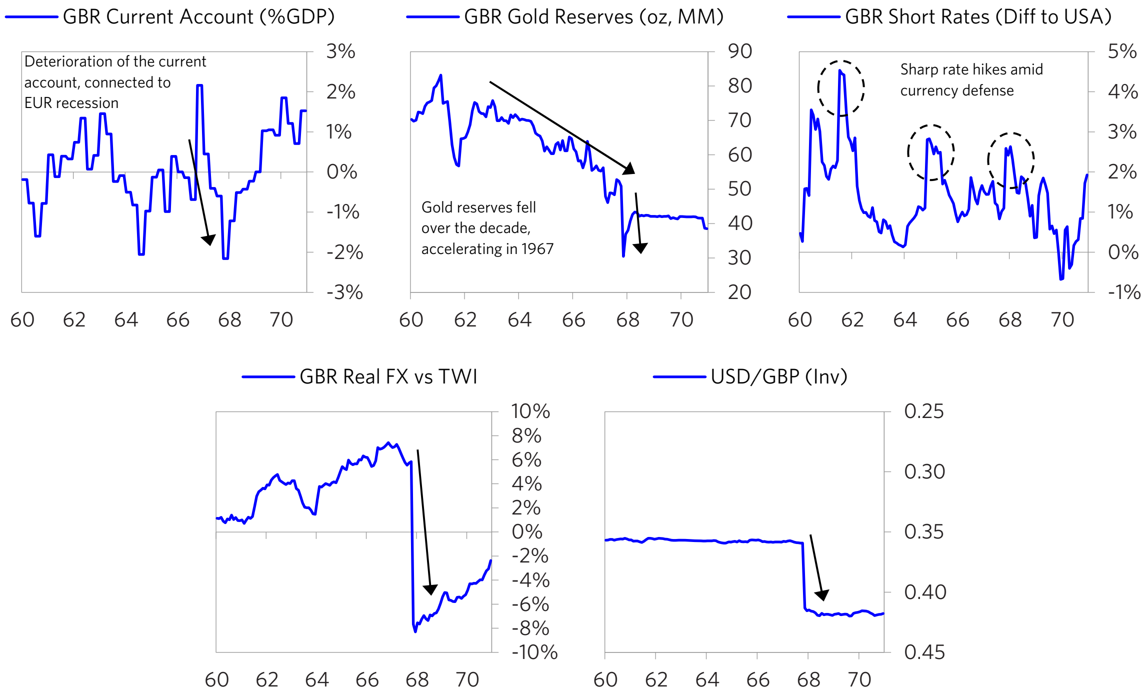
[66] Schenk, *Decline of Sterling,* 39, 46; for further description, see https://eh.net/encyclopedia/the-sterling-area/
[67] For further description of these and other coordinated policies, see Catherine Schenk, "The Retirement of Sterling as a Reserve Currency After 1945: Lessons for the US Dollar?"
[68] John Singleton & Catherine Schenk, "The Shift from Sterling to the Dollar, 1965–76: Evidence from Australia and New Zealand," 1162
[69] For more detail on the dynamics of the Sterling Area, see Catherine Schenk, *Britain and the Sterling Area*, 1994

by prominent British policy makers as "a sort of British Dien Bien Phu."[70] **When the pound came under extreme selling pressure again in 1967 (following rising rates in the developed world, recessions in major UK export markets, and heightened conflict in the Middle East),[71] British policy makers decided to devalue sterling by 14% against the dollar.**

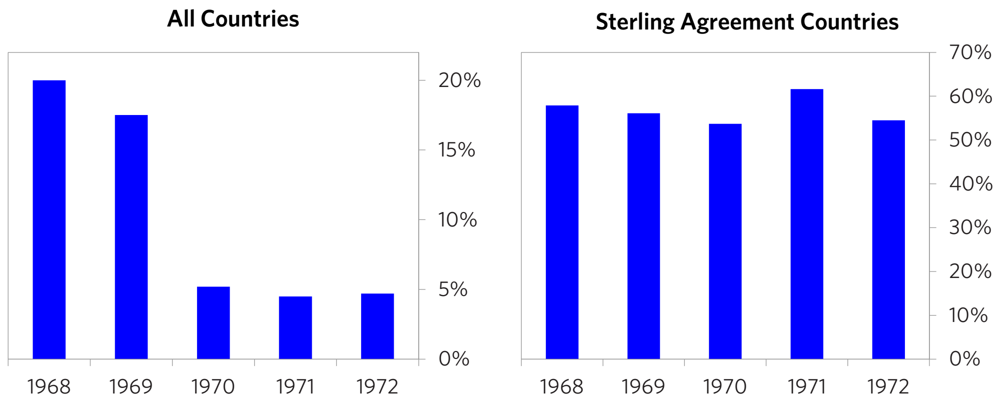


[70] As quoted by Schenk, *Decline of Sterling,* 156
[71] Schenk, *Decline of Sterling,* 174

After the devaluation little faith remained in the pound as the second-best reserve currency after the dollar. For the first time since the end of World War II, international central banks began actively selling their sterling reserves (as opposed to simply accumulating fewer pounds in new reserve holdings) and instead began buying dollars, deutschmarks, and yen. As you can see in the chart below on the left, the average share of sterling in central bank reserve holdings collapsed within two years of the devaluation. At the same time the UK was still able to convince Sterling Area countries not to diversify away from the pound. In the Sterling Agreement of 1968, Sterling Area members agreed to maintain a floor on their pound reserve holdings, as long as 90% of the dollar value of these holdings was guaranteed by the British government. So although the share of pound reserves in these Sterling Agreement countries like Australia and New Zealand remained high, this was only because these reserves had their value guaranteed by the British in dollars. **So all countries that continued to hold a high share of their reserves in pounds after 1968 were holding de facto dollars with the British bearing the risk of a further sterling devaluation.**[72]

Average Share of Pounds in Central Bank Reserves (%Total)

Central banks begin selling their sterling reserves following the devaluation. The share of the pound collapses.



Sterling Agreement countries promise to continue holding pounds, but only if 90% of their dollar value is guaranteed by the British government

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By this time the dollar was having its own set of balance of payments and currency problems, but that is for the next installment of this series when I turn to **the United States and China**.

[72] For fuller coverage of this, see Schenk, *Decline of Sterling,* 273-315
[73] Data from Schenk, "The Retirement of Sterling as a Reserve Currency After 1945: Lessons for the US Dollar?," 25

Chapter 5:
The Last 500 Years Part 2:
The Big Cycle of the United States and the Dollar

Chapter 5: The Last 500 Years Part 2: The Big Cycle of the United States and the Dollar

To remind you, I did this study so that I could understand how we got to where we are and how to deal with the situations we are facing, but I am no great historian. I'm just a guy with a compulsion to understand how these things work and to bet on what will happen, who has access to great research assistants, fabulous data, incredibly informed experts, lots of insightful written research, and my own experiences. I'm using all of this to try to figure out what's true and what to do about it. I am not ideological. I am mechanical. I look at reality as a perpetual-motion machine with cause/effect relationships driving developments through time. I am sharing this information with you to take or leave as you like and to have you point out any inaccuracies you think might exist as we try to figure out together what's true and what to do about it.

This chapter is a continuation of the last chapter in which we started to look at each of the leading reserve currency empires over the last 500 years, starting with the Dutch and British empires. We first saw the Dutch and then the British rise to become the richest and most powerful reserve currency empire and then decline into relative insignificance in cycles that were driven by timeless and universal cause/effect relationships. We ended with the British Empire declining in the first half of the 20th century. That brought us up to World War II, after which the British Empire was replaced by the US Empire. In this chapter we will examine the US and in the next we will examine China—now the two leading world powers—to see how they are progressing along the path of the archetypical cycle. That will complete our examination of the rises and declines of the leading empires over the last 500 years. We will then make one more quick review of the past before trying to squint into the future.

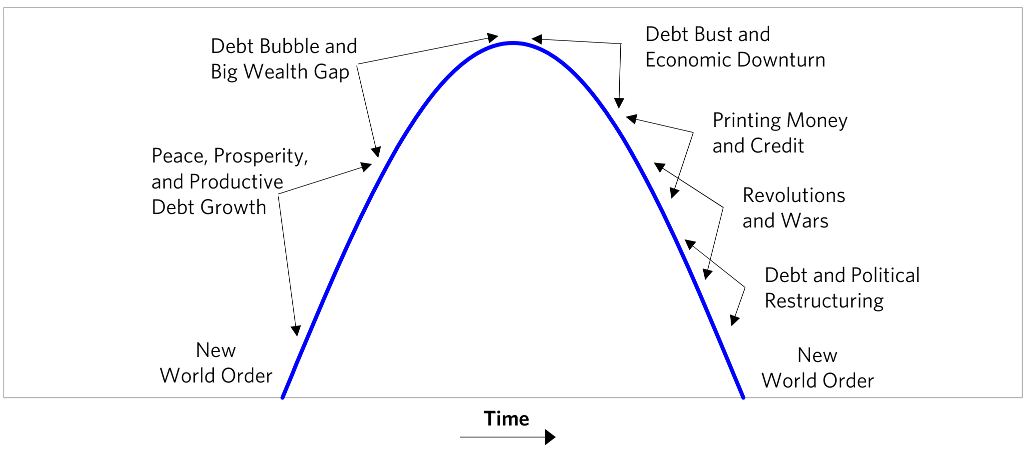
As we move closer to the present, I will increasingly shift from describing each country's story individually to weaving the most relevant countries' stories together chronologically so you can better see the interactions, and I will do it in greater detail. I will start in 1930 and bring the story up to the present for both the US and China, and then I will focus more closely on US-China interactions, which are the most important ones today. While telling the story this way will make it a bit more complicated, it will help you see how what is happening now is similar to what happened in the past because the most important forces and cause/effect relationships behind them are essentially the same. As we delve into the particulars of the last 90 years, it is easy to lose sight of the big arcs, most importantly the three big cycles—i.e., the long-term debt/monetary cycle, the wealth and political gap cycle, and the global geopolitical cycle—as well as the eight major types of power and the 17 major drivers behind them. **I will try to keep it simple, emphasizing just the most important developments in just the most influential countries, but if you find that the story starts getting more complicated than you'd like, remember that you can just read the text in bold in order to get the main points without complication.**

World affairs and history are complicated because there is a lot going on both within and between relevant countries. Understanding just the most important relevant issues of just the most important countries is challenging because one has to see all of these perspectives accurately and simultaneously. All countries are living out their own stories that transpire on a daily basis, and these stories are woven together to make up the world story. But typically, at any one time, there are only a few leading countries and a limited number of major themes that make up the major story of the changing world order. Since the end of World War I, the most relevant stories have been those of Great Britain, the United States, Germany, Japan, the Soviet Union, and China. I'm not saying that these are the only countries that matter because that isn't true. But I am saying that the story of the changing world order since World War I can be pretty well told by understanding the main developments within and between these countries. In this chapter I will attempt to briefly tell the stories of these countries and their most important interactions. This is the highlights version of the more complete version of the stories that I will pass to you in Part 2 of this book.

In telling these stories I will try to convey them without bias. I believe that to accurately understand both history and what is happening now, I need to see things through the relevant parties' eyes, including those of enemies. ***While there are of course allies and enemies and it is tempting to demonize the enemies, most people and countries are simply pursuing their own interests in the ways they believe are best for them, so I find it productive to try to see things through their eyes and counterproductive to demonize them.*** **If you hear me say things that sound sympathetic to former or existing enemies—like "Hitler built a strong economy before going to war"—please know that it is because I am seeking accuracy and need to be truthful rather than politically correct in conveying my thinking.** While I might be wrong and we might not agree, that's all OK with me as long as I am describing the picture as accurately as I can.

Before I begin recounting the story of the United States I'd like to remind you of the archetypical Big Cycle that I described earlier so you can keep it in mind as you read about how events transpired up to the present. Though a super-oversimplification of the whole thing, in a nutshell it appears to me that the archetypical Big Cycle transpires as follows.

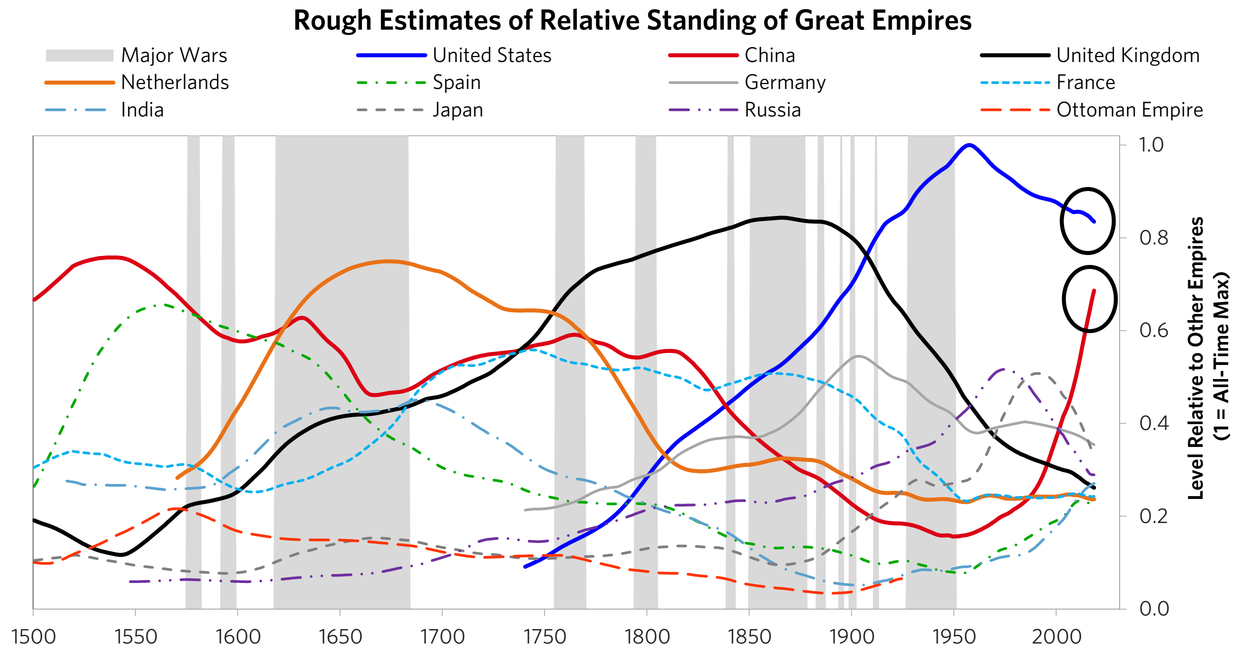
The Typical Big Cycle Behind Empires' Rises and Declines



A new world order typically begins after radical changes in how things work within countries (i.e., via some form of revolution) and between countries (typically some form of war). They change in big ways who has wealth and power and the approaches used to get wealth and power. For example in 1945, when the latest world order began, the US and its capitalist and democratic allies squared off against the communist and autocratic approaches of the Soviet Union and its allies. As we saw from studying the Dutch and British empires, capitalism was key to these countries' successes but also contributed to their failures. It was successful because the pursuit of profit motivated people, and the competitive process of allocating capital and profit making directed resources relatively efficiently to what people wanted enough to pay for. In this system those who allocated efficiently profited, which led to them gaining more resources, while those who couldn't allocate well died economically.

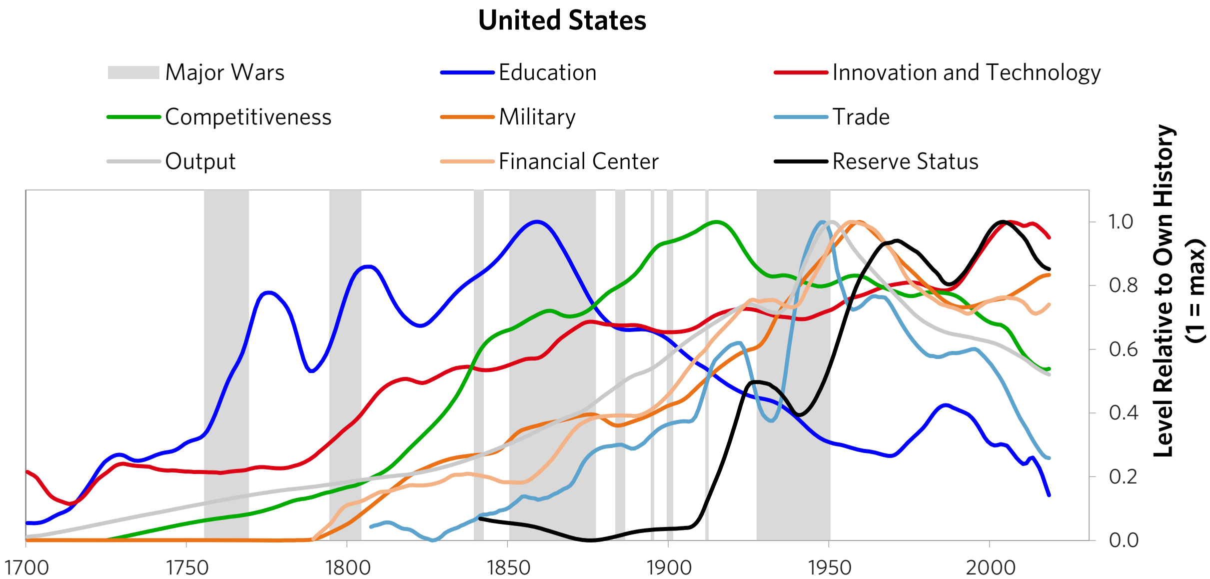
At the same time, this system of increasing wealth produced widening wealth and opportunity gaps, as well as decadence in the form of people working less and increasingly living on borrowed money. As the wealth and opportunity gaps grew, that produced increasingly widespread views that the system wasn't fair. When the debt problems and other factors led to bad economic times at the same time as the wealth and values gaps were large, that produced a lot of internal conflict that led to large, revolutionary changes in who had wealth and power and the processes for getting them. Sometimes these big changes were made peacefully, and sometimes they were made violently. When the leading countries suffered from these internal challenges at the same time as rival countries had become strong enough to challenge them, the risks of external wars increased. When these seismic shifts in how wealth and power are distributed occur within countries (i.e., via revolutions) or between countries (typically through wars, though sometimes peacefully), the old world order breaks down and a new world order begins, and the process starts all over again.

To refresh your memory, the chart below shows the relative powers of the leading countries as measured in indices that measure eight different types of power—education, competitiveness, innovation/technology, trade, economic output, military, financial center status, and reserve currency status. In examining each country's rise and decline I look at each of the eight measures and convey the highlights of their stories while diving into key moments to understand how they transpired in a more granular way. We will now do that with the United States and China, which as you can see in this chart are currently the leading powers.



The US Empire and the US Dollar

While this section primarily focuses on the story of the US since it overtook the British Empire as the dominant global power during the world wars, we will first take a quick look at the whole arc of its rise and its somewhat recent relative decline. The chart below shows the eight types of power that make up our overall measure of power. **In it you can see the story behind the US's rise and decline since 1700. We start in 1700 because that was just before the emergence of the United States. While the area now occupied by the United States was of course inhabited by native people for thousands of years, the history of the United States as a nation begins with the colonists, who revolted against the colonial power of Great Britain to gain independence in 1776.** In the chart you can see the seeds of the US's rise going back to the early 1800s, starting with rising strengths in education and then in innovation/technology and competitiveness. These powers and world circumstances allowed the US to create massive productivity growth during the Second Industrial Revolution, which was from around 1870 to the beginning of World War I and then beyond it. These increased strengths were reflected in the US's increasing shares of global economic output and world trade, as well as growing its financial strength, exemplified in New York becoming the world's leading financial center, continuing leadership in innovations, and great usage of its financial products. You can see that these measures of the United States' powers relative to its own history reached their peaks in the 1950s immediately after the Allies won World War II. At that time, the gap between the US and the rest of the world was at its greatest and the US dollar and the US world order became dominant. Though the United States was clearly the dominant power in the post-World War II period, the Soviet Empire was a rival, though it was never nearly as strong overall. The Soviets and their communist satellite states vied against the much stronger US and US allies and satellite states until Soviet power began to fade under the weight of its growing inefficiency around 1980 and then collapsed in 1989-91. That is about when China began to rise to become a comparable rival power to the US where it is today.



As you can see, while the United States' relative strengths of education, competitiveness, trade, and production have declined significantly and steadily over the last 100 years (to now be around the 50-60th percentile versus other leading powers), its relative strength in innovation and technology, reserve currency status, financial center power, and military have remained at or near the top. At the same time, as we will see when we delve into China's picture, China has gained on the US in all these areas, has become comparable in many ways, and is advancing considerably faster than the US.

Let's now drop down from the 40,000-foot level to the 20,000-foot level and pick up our story in 1930 so we can see how the United States evolved to become the dominant world power. While we focus predominantly on the US story, the linkages between economic conditions and political conditions within the United States and between the United States and other countries—most importantly with the UK, Germany, and Japan in the 1930s, with the Soviet Union and Japan from around 1950 until 1990, and with China from around 1980 until now—must be understood because economics and geopolitics within and between countries were and always are intertwined.

1930 to 1939/41: The Economic War

As a principle:

Before there is a shooting war there is usually an economic war.

And:

Severe economic downturns with large wealth gaps, large debts, and ineffective monetary policies make a combustible combination that typically leads to significant conflicts and revolutionary changes within countries.

And:

During periods of great conflict there is a strong tendency to move to more autocratic leadership to bring order to the chaos.

In 1929 the Roaring '20s bubble burst and the global depression followed. It led to virtually all countries having significant internal conflicts over wealth that led them to turn to more populist, autocratic, nationalistic, and militaristic leaders and policies. These moves were either to the right or to the left and occurred in varying degrees. The extremities of these degrees varied by country, according to their circumstances and the lengths and depths of their democratic or autocratic traditions. In Germany, Japan, Italy, and Spain, their extremely bad circumstances and their less well-established democratic traditions led to extreme internal conflicts and a turn

to populist-autocratic leaders of the right (i.e., fascists), just as at different points in time the leaders of the Soviet Union and China, which also endured extreme circumstances and had no experience with democracy, became populist, autocratic leaders of the left (i.e., communists). The US and the UK had less severe conditions and much stronger democratic traditions, so they became more populist and autocratic than they were, but not nearly as extreme as other nations.

In addition to these economically motivated conflicts within countries and the political shifts that arose from them, all of these countries faced increased external economic conflicts as they fought for greater shares of a shrinking economic pie. Because power rather than law rules international relations, there was a sequence of intensifying tests of power that led to war and then to peace and the new world order in 1945.

To help to convey the picture in the 1930s, I will quickly run though some geopolitical highlights of what happened from 1930 until the official start of the war in Europe in 1939 and the bombing of Pearl Harbor in 1941. Then I will quickly move through the war and come to 1945 when the new world order began. I will then look at where this world order has brought us up until now. While these stories are interesting in and of themselves, they are most important to understand because of the lessons they provide for thinking about what is now happening and what's ahead.

Because the United States and China are now in an economic war that could conceivably evolve into a shooting war, and I've never experienced an economic war, I studied a number of past ones to learn what they are like. That taught me a bit about economic warfare, helped me better understand what is happening now, and made me aware of possibilities that I hadn't previously considered. Comparisons between the 1930s leading to World War II and today, especially with regard to economic sanctions, are especially interesting and helpful in considering what might be ahead. For that reason, I delve into the story of this period in a bit more detail than you might care to read. If you find that to be the case, just read the bold for the highlights.

The economic wars started about 10 years before the hot wars. The Great Depression brought economic suffering to virtually all nations, which led to fighting over wealth within and between countries that led to the hot wars that began a decade later.

In 1929 gold (and to a lesser extent silver) was money, and paper money represented a promise to deliver it (there was a Type 2 monetary system in the world, as explained in Chapter 2). In the Roaring '20s a lot of debt (promises to deliver paper money that was convertible to gold) was created to buy speculative assets (particularly stocks). **When the Federal Reserve tightened monetary policy in 1929 to curtail the speculation, the bubble burst and the global Great Depression began.**

The debt problems in the US were ruinous for American banks, which curtailed their lending around the world, hurting international borrowers. At the same time the depression created weak demand, which led to the collapse in US imports and other countries' sales to the US. As their incomes weakened their demand fell and more credit problems occurred in a self-reinforcing downward economic spiral. At the same time the US turned protectionist to safeguard jobs, so it raised tariffs (via the passage of the Smoot-Hawley Tariff Act) in 1930, which further depressed economic conditions in other countries.

Turning protectionist and raising tariffs to protect domestic businesses and jobs during periods of economic bad times is common. It leads to reduced efficiency because production does not occur where it can be done most efficiently, and it typically contributes to greater global economic weakness as raising tariffs usually leads to tariff wars that typically cause the country that raised tariffs to lose exports too. It does however benefit those entities protected by the tariffs and can create political support for the leader who is imposing the tariffs.

When the Great Depression began, Germany, Japan, the Soviet Union, and China were already suffering. Germany struggled under the burdens of its World War I debt and the occupation of the Rhineland by foreign forces. Japan suffered a classic big debt crisis in 1927 that was followed by a severe depression in 1930-31 and then a classic massive currency devaluation, fiscal stimulation, and debt monetization that pretty much wiped out financial wealth in Japan. The Soviet Union suffered from its 1917-22 revolution and the civil war, a lost war to Germany, a costly war with Poland, a famine in 1921, and political purges and economic hardships through the

1930s. China suffered from civil war, poverty, and a famine in 1928-30. **So when things worsened in 1930, bad conditions became desperate conditions in these countries, which set in motion the economic and eventually military conflicts that followed.**

To make matters worse droughts in the US and in the Soviet Union soon followed. The drought/famine in the Soviet Union, in combination with extreme government policies, was so severe that it caused millions of deaths. ***Harmful acts of nature (e.g., droughts, floods, and plagues) have often caused periods of great economic hardship that when combined with other adverse conditions have led to periods of great conflict.*** Over the next several years in Russia internal political fighting and fears of Nazi Germany led to purges of hundreds of thousands of people who were accused of spying and shot without trials.

While Germany had previously been saddled with tremendous reparation debts following World War I, in 1929 it was beginning to emerge from under the yoke of these via the Young Plan, which provided for considerable debt relief and the departure of foreign troops from Germany by 1930. However, **the global depression hit Germany hard, leading to 25% unemployment, massive bankruptcies, and extensive poverty. As is typical, a battle between populists of the left (communists) and populists of the right (fascists) emerged.** Adolf Hitler, the leading populist-fascist, tapped into the mood of national humiliation to build a nationalist furor, casting as the enemy the World-War-I-ending Treaty of Versailles and the countries that imposed it. He created a nationalist program of 25 points that gave something to everyone and rallied support around it. **In response to internal fighting and a desire to restore order, Hitler was appointed chancellor in January 1933,** drawing large support for his Nazi Party from industrialists who feared the communists. Two months later, the Nazi Party won the most support and the most seats.

In the United States in 1932 there was the presidential election that led to the election of Franklin D. Roosevelt, who many considered a populist of the left. Promptly after his inauguration, in March/April 1933, he defaulted on the promise to convert paper dollars into gold, provided money to all banks so depositors at those banks could get their money, ordered all gold in denominations of more than $100 to be turned in for paper money at a rate of $20.67 per ounce, and devalued the dollar in relation to other currencies. There were also big fiscal spending programs that led to large budget deficits and large debts that the Federal Reserve bought with money that it printed.

As a principle: ***Deflationary depressions are debt crises caused by there not being enough money in the hands of debtors to service their debts. They inevitably lead to the printing of money, debt restructurings, and government spending programs that increase the supply of, and reduce the value of, money and credit. The only question is how long it takes for government officials to make this move.***

In the case of the Great Depression, it took from the October 1929 peak to Roosevelt's March 1933 action to make the move. From that point until the end of 1936—the year the Federal Reserve tightened monetary policy and caused the recession of 1937-38—the stock market returned over 200%, and the economy grew at an average real rate of about 9%!

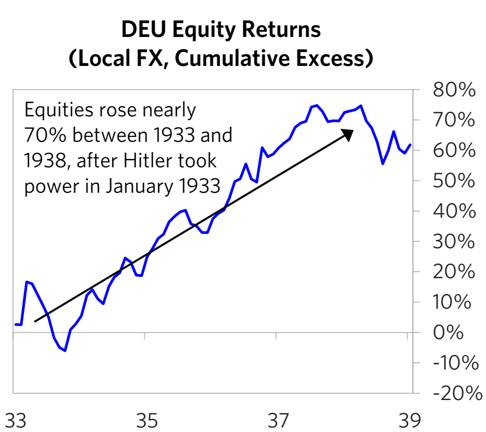
As a principle: ***During periods of severe economic distress and large wealth gaps, there are typically revolutionarily large redistributions of wealth. When done peacefully these are achieved through large tax increases on the rich and big increases in the supply of money that devalue debtors' claims, and when done violently they are achieved by forced asset confiscations.***

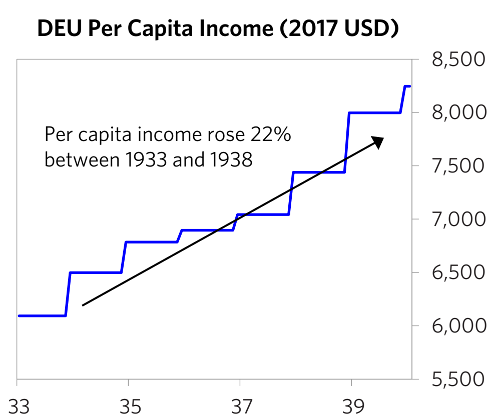
In Roosevelt's first 100 days in office he created a number of big government spending programs that were paid for by big tax increases and big budget deficits financed by debt that the Federal Reserve monetized. He provided jobs programs, unemployment insurance, Social Security supports, and labor- and union-friendly programs. After his 1935 tax bill, then popularly called the "Soak the Rich Tax," the top marginal income tax rate for individuals rose to 75% (versus as low as 25% in 1930). By 1941, the top personal tax rate was 81%, and the top corporate tax rate was 31%, having started at 12% in 1930. He also imposed a number of other taxes. Despite all of these taxes and the pickup in the economy that helped to raise tax revenue, budget deficits increased from around 1% of GDP to about 4% of GDP because the spending increases were so large. Specific developments through the Great Depression are explained more completely in Chapter 2: "The Big Cycle of Money, Credit, Debt, and Economic Activity" or in great detail in Part 2 of my book *Principles for Navigating Big Debt Crises*.

Meanwhile in Germany, Hitler continued to pursue nationalist policies, refusing to pay reparation debts to creditor countries. He also stepped out of the League of Nations and took autocratic control of the country in 1934. By holding the roles of both chancellor and president, he became Germany's supreme leader. ***In democracies there are always some laws that allow countries' leaders to grab special powers.*** **Hitler seized them all.** He invoked "Article 48" to put an end to many civil rights and suppress political opposition from the communists and forced the passage of the "Enabling Act," which allowed him to pass laws without the approval of the parliament and the president. He pursued the autocratic advancement of the "Aryan race" and was ruthless against any opposition—e.g., he took control of or censored newspapers and broadcasting companies, created a secret police force (the Gestapo) to find and fight all opposition, deprived Jews of all rights of citizenship, and took control of the Protestant Church's finances and arrested church officials who opposed him. Declaring the Aryan race superior, he prohibited non-Aryans from serving in government.

Hitler also took that same autocratic/fascist approach to building the economy, coupled with big fiscal and monetary stimulation programs. To create a strong economy for Aryan Germans, Hitler quickly privatized state-owned businesses and encouraged corporate investment that was paid for by borrowing. He acted strongly in support of raising their living standards. For example, he set up Volkswagen to make cars affordable and accessible to most people, and he directed the building of the Autobahn. He financed this substantially increased government spending by forcing banks to buy government bonds. The debts that were produced were paid back by the earnings of companies and the central bank (the Reichsbank) monetizing debt. These policies by and large worked well. **This is another good example of how *borrowing in one's own currency and increasing one's own debt and deficits can be highly productive if the money borrowed is put into investments that raise productivity that produces more than enough cash flow to service the debt and, even if it doesn't cover 100% of the debt service, it can be very cost-effective in achieving the economic goals of the country.***

As for the economic effects of these policies, **when Hitler came to power in 1933 the unemployment rate was 25%. By 1938 it was nil. Per capita income between his coming to power and five years later in 1938 increased by 22% and real growth averaged over 8% per year between 1934 and 1938. Consistent with the rise in the growth, as shown in the below charts, German equities rallied nearly 70% in a steady trend between 1933 and 1938 until the onset of the hot war.**





Also in 1935 he began to build the military, making military service required and increasing Germany's military spending much faster than any other country because **the German economy needed more resources to fuel itself and needed to get these from other countries so it built and used its military power to help get them. One could argue that getting them militarily was more cost-effective than trying to produce goods to trade with others to earn income to buy what was needed.**

Like Germany, **Japan was also hit exceptionally hard by the depression and became more autocratic in response to it.** Japan was especially vulnerable to the depression because, as an island nation without adequate natural resources, it relied on exports for income to import necessities. When its exports fell by around 50% between 1929 and 1931, it was economically devastated. **In 1931, the depression in Japan was so severe that the country went broke**—i.e., it was forced to draw down its gold reserves, abandon the gold standard, and float its currency, which depreciated it so greatly that Japan ran out of buying power. **These terrible conditions and large wealth gaps led to fighting between the left and the right. In 1932 that led to a massive upsurge in right-wing nationalism and militarism to forcefully restore order and bring back economic stability. To that end, Japan's military took control and pursued military options to get Japan the resources it needed by taking them away from other countries. Japan invaded Manchuria in 1931 and later expanded through China and Asia to obtain natural resources (e.g., oil, iron, coal, and rubber) and human resources (i.e., slave labor). As in the German case, it could be argued that this path of military aggression to get needed resources was the best path for the Japanese because relying on classic trading and economic practices wouldn't have gotten them what they needed.**

Shifting to more autocratic, populist, and nationalist leaders and policies during times of extreme economic stress is typical, as people want strong leadership to bring order to the chaos and to deal strongly with the outside enemy. In 1934, there was severe famine in parts of Japan, causing even more political turbulence and reinforcing the right-wing, militaristic, nationalistic, and expansionistic movement.

In the years that followed, this movement in Japan, like that in Germany, became increasingly strong with its top-down fascist command economy, building a military-industrial complex with the military mobilized to protect its existing bases in East Asia and northern China and its expansion into other territories. As was also the case in Germany, during this time, while most Japanese companies remained outside government ownership, their production was controlled by the government.

What is fascism, and why was it adopted in countries like Germany and Japan? Consider the following three big choices that one has to make in order choose a country's approach to governance: a) bottom-up (democratic) or top-down (autocratic) decision-making, b) capitalist or communist (with socialist in the middle) ownership of production, and c) individualistic (which treats the well-being of the individual with paramount importance) or collectivist (which treats the well-being of the whole with paramount importance). Pick the one from each category that you believe works best for your nation's values and ambitions and you have your preferred approach. Fascism is autocratic, capitalist, and collectivist. Fascists believed that top-down autocratic leadership, in which the government directs the production of privately held companies in a way that individual gratification is subordinated to national success, is the best way to make the country and its people wealthier and more powerful. The United States and Great Britain believed that the democratic, capitalist, and individualistic mix was better, while the Soviet Union believed that the autocratic, communist, and collectivist mix was best.

In pursuing its capitalist approach, in 1936-37, the Federal Reserve tightened money and credit to fight inflation and slow an overheating economy, which caused the fragile US economy to go into recession and other major economies to weaken with it, further raising tensions within and between countries. Meanwhile in Europe, the conflict in Spain between the populists of the left (the communists) and the populists of the right (the fascists) flared up into the brutal Spanish Civil War. Franco of the right, with the support of Hitler, purged all left-wing organizations in Spain. In November 1937, Hitler held a secret meeting with his top officials to announce his plans for German expansion in Europe to gain resources and bring together the Aryan race. **Hitler then put his plans for expansion into action, first annexing Austria and then seizing a part of Czechoslovakia that contained oil resources. Europe and the US watched warily, not wanting to get drawn into another war so soon after the**

devastation of World War I. Then on September 1, 1939, Germany invaded Poland. That is when England and France declared war on Germany, which is why that is the date that marks the beginning of World War II in Europe.

In the Pacific in 1937 Japan spread its occupation of China, brutally taking control of Shanghai and Nanking, killing an estimated 200,000 Chinese civilians and disarmed combatants in the capture of Nanking alone. While the US remained isolationist, it did provide China's Chiang Kai-shek government with fighter planes and pilots to fight the Japanese, thus putting a toe in the war, and conflicts between the US and Japan began to flare when a Japanese soldier struck the US consul in Nanking and Japanese fighter planes sank a US gunship anchored nearby.

The US remained reluctant to enter the wars in Europe and Asia. In fact, in November 1940, Roosevelt was re-elected for a third term by promising to keep the US out of the war, even though the US was already taking action to protect its interests, especially in the Pacific. Still the US began using economic supports for countries it sympathized with and economic sanctions against those it did not—e.g., earlier in 1940, US Secretary of War Henry Stimson initiated aggressive economic sanctions against Japan, culminating in the Export Control Act of 1940. **In mid-1940 the US moved the US Pacific Fleet to Hawaii. In October, the US ramped up the embargo, restricting "all iron and steel to destinations other than Britain and nations of the Western Hemisphere."[74] The plan was to cut off the resources needed by Japan in order to strangle them into submission and force a retreat from most of the areas they had taken over.**

While in March 1941 the US still wanted to avoid the war, Congress passed the Lend-Lease Act, which allowed it to lend or lease war supplies to nations that it deemed to be acting in ways that were "vital to the defense of the United States," which included Great Britain, the Soviet Union, and China. This was good for the US both geopolitically and economically because the US made a lot of money selling weapons, food, and other items to countries that the US favored in the war. These soon-to-be allied countries were having problems producing them while waging war, and they (most significantly Great Britain) ran out of money (i.e., gold) so the US decided to be more supportive and postpone payment until after the war (and in some cases avoiding payment entirely). **The Lend-Lease policy, although not an outright declaration of war, ended the United States' neutrality.**

As a principle, *when countries are weak, opposing countries take advantage of their weaknesses to obtain gains.* At the time, European Allied countries (France, Netherlands, Great Britain) had colonies in Asia and were overstretched fighting the war in Europe so they were unable to defend these colonies from Japanese takeovers. **Beginning in September 1940, to obtain more resources and take advantage of the European preoccupation with the war on their own continent, Japan invaded several colonies in Southeast Asia,** starting with French Indochina. In 1941, Japan extended its reach by seizing oil reserves in the Dutch East Indies to add the "Southern Resource Zone" to its "Greater East Asia Co-Prosperity Sphere." The Southern Resource Zone was a collection of mostly European colonies in Southeast Asia whose conquest would afford Japan access to key natural resources (most importantly oil, rubber, and rice). The Greater East Asia Co-Prosperity Sphere was a bloc of Asian countries controlled by Japan. The German and Japanese fascist governments were on a roll.

At the same time this Japanese territorial expansion was a threat the US's own Pacific ambitions and continued to heighten tensions with Japan. In July and August 1941 Roosevelt responded by ordering the freezing of all Japanese assets in the United States, closing Japan's ability to ship through the Panama Canal, and embargoing all oil and gas exports to Japan. This cut off three-fourths of its trade and 80% of its oil. Japan calculated that it would be out of oil in two years. **This put Japan in the position of having to choose between backing down and attacking the US.**

As with all wars ***the unknowns about what will happen in a war are far greater than the knowns a) because rival powers go into wars only when their powers are roughly comparable (because otherwise it would be stupidly suicidal for the obviously weaker power to go to war) and b) because there are way too many possible actions and reactions to anticipate. The only thing that is known at the outset of war is that it will probably be extremely painful and possibly***

[74] As quoted in Harry Elmer Barnes, *Perpetual War for Perpetual Peace: A Critical Examination of the Foreign Policy of Franklin Delano Roosevelt And Its Aftermath*, 1953.

ruinous. As a result, smart leaders typically only go into hot wars if there is no choice because the other side pushes them into the position of either fighting or losing by backing down. **That is how World War II began.**

On December 7 and 8, 1941, Japan launched coordinated attacks on US military forces in the Philippines and at Pearl Harbor. That marked the beginning of World War II in the Pacific which brought the US into the war in Europe too.

While Japan didn't have a widely recognized plan to win the war, it appears that those Japanese leaders who were optimistic planned to destroy the US Pacific Fleet and believed that the US would lose because it was fighting a war on two fronts (Europe and Asia) and because its individualistic/capitalist political system was inferior to Japan's and Germany's authoritarian, fascist systems and their command military-industrial complexes. They also believed that they had the greater willingness to endure pain and die for their country, which is a big driver of which side wins.

Before going on to describe the hot war known as World War II I want to reiterate the most common economic warfare techniques. They have been and still are:

1) **Asset Freezes/Seizures:** Preventing an enemy/rival from using or selling foreign assets they rely on. These measures can range from asset freezes for targeted groups in a country (e.g., the current US sanctions of the Iranian Revolutionary Guard or the initial US asset freeze against Japan in World War II) to more severe measures like unilateral debt repudiation or outright seizures of a country's assets (some top US policy makers are now talking about not paying our debts to China).
2) **Blocking Capital Market Access:** Preventing a country from accessing their own or another country's capital markets (e.g., in 1887 Germany banned the purchase of Russian securities and debt to impede Russia's military buildup, the US now issuing threats of doing this to China).
3) **Embargoes/Blockades:** Blocking trade in goods and/or services either in one's own country, or in some cases with neutral third parties, for the purpose of weakening the targeted country or preventing it from getting essential items (e.g., the US oil embargo of Japan and cutting off its ability to ship through the Panama Canal) or blocking exports from the targeted country to other countries thus cutting off their income (e.g., France's blockade of the UK in the Napoleonic Wars).

If you're interested in seeing some of the specifics and variations that have taken place in these from 1600 until now, they are set out in a table in Appendix I.

1939/41 to 1945: The Hot War

In 1940, after the war began in Europe and prior to the US entering, Germany, like Japan, looked unstoppable; it captured Denmark, Norway, the Netherlands, Belgium, Luxembourg, and France, and formed a stronger alliance with Japan and Italy, who had common enemies and were ideologically aligned. By seizing territory rapidly, Hitler's army was able to conserve oil and gain resources quickly (e.g., it gained access to oil by annexing Romania). Its roll seemed unstoppable. Its thirst for, and acquisition of, natural resources remained a major driver of the Nazi war machine pushing its campaigns into Russia and the Middle East. The war with the communist Soviet power was inevitable as Germany's conquests in Western Europe put these two big and ideologically opposed powers on a collision course. The only question was when. While the Soviet Union and Germany had signed a non-aggression pact to postpone it, the Soviet Union invaded several Eastern European states, including the Baltic states, and took control of them. Germany invaded Russia in June 1941, which put Germany in an extremely costly war for both the Western European and Russian/Soviet sides.

When the US entered the European and Pacific wars after the attack on Pearl Harbor, classic wartime economic policies were put in place in most countries by leaders who became more autocratic and whose autocratic approaches were broadly supported by their populations in opposition to the evil enemy.

Just as it is worth noting what classic economic war techniques are, it is worth noting what classic wartime economic policies within countries are. ***Classic wartime economic policies include government controls on just about everything as the country shifts resources from profit making to war making—e.g., the government determines a) what items are allowed to be produced, b) what items can be bought and sold in what amounts (rationing), c) what items can be imported and exported, d) prices, wages, and profits, e) access to one's own financial assets, and f) the ability to move one's money out of the country. Because wars are expensive classically g) the government issues lots of debt that is monetized, h) relies on non-credit money such as gold for international transactions because its credit is not accepted, i) governs more autocratically, j) imposes various types of economic sanctions on enemies including cutting off their access to capital, and k) experiences enemies imposing these sanctions on them.***

The table below shows the economic controls that were put in place during the war years in each of the major countries.

Wartime Economic Controls

	Rationing	Production Controls	Price/Wage Controls	Import or Export Restrictions	Takeover of Central Bank
Allies					
United States	Yes	Yes	Yes	Yes	Yes
United Kingdom	Yes	Yes	Yes	Yes	Partial
Axis					
Germany	Yes	Yes	Yes	Yes	Yes
Japan	Yes	Yes	Yes	Yes	Yes

The market movements during the hot war years were heavily affected by both government controls and how countries did in battles as the odds of wins and losses changed. The table below shows the controls over markets and capital flows that were put in place by country during the war years.

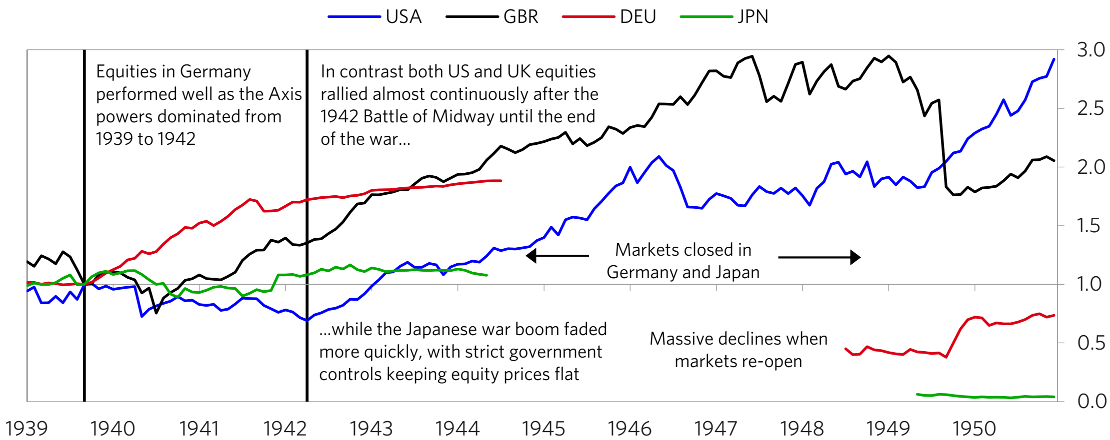
Regulations Impacting Assets

	Market Closures	Asset Price Controls	Asset Ownership Restrictions	FX Controls	Top Marginal Tax Rate	Limits on New Issuance	Limits on Corp. Profits
Allies							
United States	No	Yes	Yes	Yes	94%	-	Yes
United Kingdom	Yes	Yes	Yes	Yes	98%	Yes	Yes
Axis							
Germany	Yes	Yes	Yes	Yes	60%	Yes	Yes
Japan	Yes	Yes	Yes	Yes	74%	Yes	Yes

Stock market closings in a number of countries were common, leaving investors in stocks stuck without access to their capital. If you want to see these closures and how they transpired to understand the range of possibilities and the cause/effect relationships behind them, you can see a list of them in Appendix II.

Because losing wars typically leads to a total wipeout of wealth and power, movements of those stock markets that remained open in the war years were largely driven by how countries did in key battles as these results shifted the probability of victory or defeat for each side. For example, German equities outperformed at the beginning of WWII as Germany captured territory and established military dominance while they underperformed after Allied powers like the US and UK turned the tide of the war. After the 1942 Battle of Midway, Allied equities rallied almost continuously until the end of the war, while Axis equities were flat or down. As shown, both the German and Japanese stock markets were closed for the end of the war, didn't reopen for around five years, and were virtually wiped out, while US stocks were extremely strong.

Equity Return Index (USD)



As a principle: ***Protecting one's wealth in times of war is difficult, as normal economic activities are curtailed, traditionally safe investments are not safe, capital mobility is limited, and high taxes are imposed when people and countries are fighting for their survival. During difficult times of conflict protecting the wealth of those who have wealth is not a priority relative to redistributing wealth to get it to where it is needed most.***

That was the case in those war years.

While we won't cover the actual battles and war moves, the headline is that **the Allied victory in 1945 produced a tremendous shift of wealth and power**.

World War II was an extremely costly war in lives and money. The numbers are gigantic and extremely imprecise. **An estimated 40-75 million people were killed as a result of it, which was 3% of the world's population, which made it the deadliest war yet.** More than half of these losses were Russian (around 25 million) and Chinese (around 20 million). Germany lost around 7 million people—just over half were military deaths and the rest were German civilian deaths, mostly from the Holocaust (and millions more non-Germans were also victims). Britain and the United States each lost around 400,000. The financial cost of the war was both enormous and inestimable, according to most experts, but, based on my research, was in the vicinity of $4-7 trillion in current dollars. What we do know is that **on a relative basis the US came out a big winner because the US sold and lent a lot before and during the war, basically all of the fighting took place off of US territory so the US wasn't physically damaged, and US deaths were comparatively low in relation to those of most other major countries.**

In Part 2 of this chapter, we will explore the new world order starting with the US as the dominant power and tell the story that brings us right up to this moment. Then we will turn to China.

Appendix I: Some Historical Cases of Capital Wars

Historical Capital Wars Summary Table

	Case	Country Imposing Capital War	Country Targeted	Was Hot War?	Capital War Preceded Hot War?	Fin. Asset Freezing/ Seizure	Blocking Financial Access	Blockades/ Embargoes of Key Trade
2014-Present	Venezuela	USA	Venezuela	No	-	Moderate	Moderate	Moderate
2014-Present	Russia	USA	RUS	Not Directly	-	Targeted	Moderate	Moderate
1986-Present	Syria	USA	Syria	Yes	No	Moderate	Severe	Severe
1980-2003	Iraq Wars	USA, UN	Iraq	Yes	Yes	Moderate	Severe	Severe
1979-Present	Iran	USA	Iran	No	-	Moderate	Severe	Severe
1973-1974	OAPEC Oil Embargo	OAPEC	Dev World	No	-	No	No	Severe
1960-1989	Cuba	USA	Cuba	No	-	Severe	Severe	Severe
1956	Suez Crisis	USA	GBR	Yes	No	No	Severe	No
1954-1974	Vietnam	USA	N. Vietnam	Yes	Yes	Severe	Severe	Severe
1950-Present	North Korea	USA	N. Korea	Yes	No	Moderate	Severe	Severe
1948-1991	Cold War	USA	USSR	No	-	No	Severe	Severe
1940, 43	WWII	USA, GBR	Neutrals	Not Directly	-	Moderate	No	Moderate
1939	WWII	USA	USSR	Not Directly	-	No	No	Moderate
1939-45	WWII	DEU	GBR, USA	Yes	Yes	Severe	-*	Severe
1939-45	WWII	GBR	DEU, JPN, ITA	Yes	Yes	Severe	Severe	Severe
1938-1945	WWII	USA	DEU, JPN	Yes	Yes	Severe	Severe	Severe
1936, 41, 44	WWII	USA	ESP	No	-	Moderate	No	Moderate
1935, 40-45	WWII	USA	ITA	Yes	Yes	Severe	Severe	Severe
1914-1918	WWI	DEU	GBR, FRA, USA	Yes	No	Severe	-*	Severe
1914-1918	WWI	USA	DEU	Yes	No	Severe	-*	Severe
1914-1918	WWI	FRA	DEU	Yes	No	Severe	-*	Severe
1914-1918	WWI	GBR	DEU	Yes	No	Severe	Severe	Severe
1861-1865	US Civil War	USA (South)	USA (North), GBR, FRA	Yes	No	Ineffective	-**	Moderate
1861-1865	US Civil War	USA (North)	USA (South)	Yes	No	Severe	-**	Severe
1807-1815	War of 1812	GBR	USA, FRA	Yes	Yes	-**	-**	Severe
1807-1815	War of 1812	USA	GBR, FRA	Yes	Yes	-**	-**	Moderate
1806-1815	War of 1812	FRA	USA, GBR	Yes	-	-**	-**	Severe
1803-1815	Napoleonic Wars	GBR	FRA	Yes	No	-**	-**	Severe
1803-1815	Napoleonic Wars	FRA	GBR	Yes	No	-**	-**	Severe
1781-1784	Fourth Anglo-Dutch War	GBR	NLD	Yes	No	-**	-**	Severe
1775-1783	Revolutionary War	GBR	USA	Yes	No	-**	-**	Severe
1756-1763	Seven Years' War	GBR	FRA	Yes	Yes	-**	-**	Severe
1672-1674	Third Anglo-Dutch War	FRA, GBR	NLD	Yes	No	-**	-**	Ineffective
1672-1678	Franco-Dutch War	FRA, GBR	NLD	Yes	No	-**	-**	Ineffective
1665-1667	Second Anglo-Dutch War	NLD	GBR	Yes	Yes	-**	-**	Moderate
1655-1660	Dutch-Swedish War	SWE	NLD	Yes	Yes	-**	-**	Moderate
1651-1654	First Anglo-Dutch War	GBR	USA, NLD	Yes	Yes	-**	-**	Moderate
1645-1669	Cretan War	ITA	OTT	Yes	Yes	-**	-**	Severe
1618-1648	Thirty Years' War	NLD	ESP	Yes	No	-**	-**	Moderate
1602-1654	Dutch-Port. Colonial Wars	NLD	POR	Yes	No	-**	-**	Severe

** Markets were broadly closed for significant periods of the war.*
***Evidence for financial asset seizures and restrictions were limited for pre-20th century conflicts, though many of these conflicts focused upon controlling territories that were valuable sources of revenue (e.g., colonies, trading posts).*

Appendix II: Cases of Market Closures in the World Wars

The table below provides a list of all the key countries that closed their markets during WWII to give you an idea of how these things go.

History of Market Closures During World War II

Reason	Country	Break Date	Return Date	Length (Months)	Action Pre Stop (1 Year Prior)	Action Upon Re-Opening
WWII - Annexed by DEU	Austria	Apr-1938	Dec-1946	104	-18.0%	94.0%
WWII - Invaded by DEU	Czech.	Oct-1938	Jan-1940	15	-20.5%	1.5%, closes again in '43
WWII - Invaded by DEU	Poland	Jul-1939	---	---	-16.9%	Didn't re-open until 1991
WWII - Invasion by USSR	Finland	Dec-1939	Mar-1940	3	-19.2%	-10.1%
WWII - Invaded by DEU	Denmark	Apr-1940	Jun-1940	2	-32.8%	-8.4%
WWII - Invaded by DEU	Norway	Apr-1940	Jun-1940	2	-27.4%	-15.4%
WWII - Invaded by DEU	Belgium	May-1940	Dec-1940	7	-26.7%	85%, closes again in '44
WWII - Invaded by DEU	Netherlands	May-1940	Sep-1940	4	-23.0%	10.5%
WWII - Mobilization	Switzerland	May-1940	Jul-1940	2	-19.0%	-20.7%
WWII - Invaded by DEU	France	Jun-1940	Apr-1941	10	-12.2%	82.4%
WWII	Japan	Jun-1944	Apr-1949	58	-21.1%	-94.9%
WWII	Hungary	Jul-1944	Aug-1946	25	-49.1%	Brief re-opening before being dissolved again
WWII - Invaded by Allies	Germany	Aug-1944	Jan-1950	65	-1.3%	-83.4%

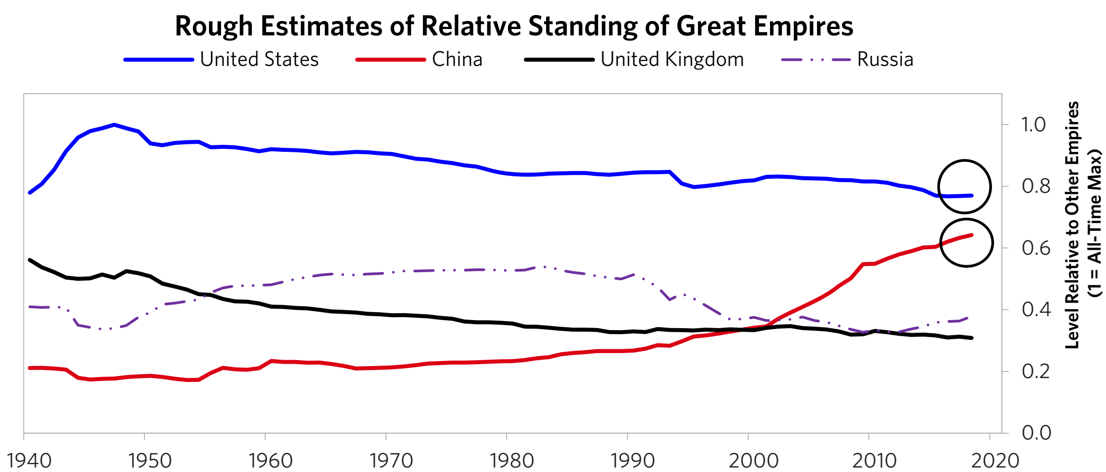
Sources: Jorion and Goetzmann "Global Stock Markets in Twentieth Century" (1999)

The Big Cycle of the United States and the Dollar, Part 2

The New World Order from 1945 until Now

As is typical after wars, World War II's winning powers—most importantly the US, Britain, and the Soviet Union (then called "the Big Three")—led meetings to create the new world order, which included carving up the world into geographic areas of control and establishing new money and credit systems. While France, China, and a couple of other countries were technically aligned with these winning countries, they were lesser players. And with Germany, Japan, and Italy defeated and broken by the war, they were neither leading nor independent powers; they were subordinate to and aligned with the US. Britain, which was essentially bankrupt, was also aligned with the US. The Soviet Union was the leading rival power that was not aligned with the US, so it formed its own camp with its own allies. While there was relatively good cooperation between the two camps immediately after the war, **it didn't take long for the world to become divided between the US-led capitalist/democratic camp and the Soviet-controlled communist/autocratic camp, each with its own monetary/economic systems, though there were a small number of less significant countries that were non-aligned.**

The chart below shows the aggregate power indices for the US, UK, Russia, and China since the end of the war, which conveys this big picture.



We will now delve into this story more closely.

The Post-War Geopolitical and Military System

The three major powers and others got together in different conferences—the Yalta Conference, the Potsdam Conference, and the Bretton Woods Conference were the most notable—and carved up the world with US-controlled capitalist/democratic countries on one side and Soviet-controlled communist/autocratic countries on the other, with each bloc having its own monetary systems. Germany was split into pieces, with the United States, Great Britain, and France having control of West Germany and Russia controlling East Germany. Japan was under US control, and China returned to a state of civil war between communists and the capitalists (i.e., the Nationalists). Unlike after World War I when the United States chose to be relatively isolationist, after World War II the United States took the primary leadership role in the world as it had most of the economic, geopolitical, and military power.

Geographically the US-led Western world extended east from the US through Western Europe into Germany, which was split into West Germany (which was controlled by the US and its allies) and East Germany along a line of division that became known as the Iron Curtain. East of that line, going through Eastern Europe and the Soviet Union to Korea was Soviet-controlled. Korea, like Germany, was split with the Soviets controlling the north and the Americans controlling the south. China, which was essentially left weak and in civil war, got back Shanghai and other previously held areas within the mainland but was left without Hong Kong (though with an agreement from 1898 to get large portions of it back after 99 years) and Formosa (now Taiwan). China had an initially cooperative relationship with the Soviet Union that didn't last long. In the other direction, going west of the US into the Pacific, the US-controlled areas extended all the way to the southern half of Korea. The British Empire's areas of control or influence remained largely the same right at the end of the war, except for some minor additions. As for geopolitical institutions, the United Nations was created in 1945, and it was located in the US (New York), reflecting the US being the leading world power.

Ideologically, the US-led world was capitalist and democratic while the Soviet-led world was communist and autocratic. The US-led monetary system for the US-led countries linked the dollar to gold and most other countries' currencies were tied to the dollar. This system was followed by over 40 countries. Because the US had around two-thirds of the world's gold then and because the US was much more powerful economically and militarily than any other country, this monetary system has worked best and carried on until now. The Soviet Union and those countries that were brought into the Soviet Union's bloc were much less rich and were built on a much weaker foundation.

The split was clear from the outset. President Truman summarized it outlining what is now referred to as the "Truman Doctrine" in a March 1947 speech:

> "At the present moment in world history nearly every nation must choose between alternative ways of life. The choice is too often not a free one. One way of life is based upon the will of the majority, and is distinguished by free institutions, representative government, free elections, guarantees of individual liberty, freedom of speech and religion, and freedom from political oppression. The second way of life is based upon the will of a minority forcibly imposed upon the majority. It relies upon terror and oppression, a controlled press and radio, fixed elections, and the suppression of personal freedoms. I believe that it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures."[75]

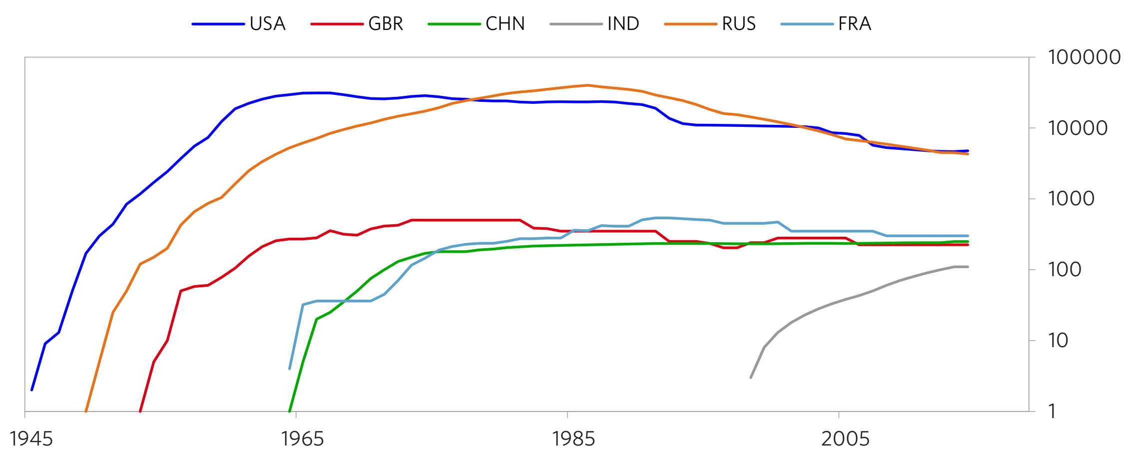
Governance between countries is very different from governance within countries. That is because within countries there are laws and standards of behavior that govern, whereas between countries raw power matters most, and laws, rules, and even mutually agreed treaties and organizations for arbitration such as the League of Nations, the United Nations, and the World Trade Organization don't matter much. Operating internationally is like operating in a jungle in which there is survival of the fittest and most anything goes. That is what makes having a strong military so important.

[75] https://avalon.law.yale.edu/20th_century/trudoc.asp

Military alliances were built along the same ideological and geopolitical lines. In 1949 a military alliance of 12 countries (with more joining later) that were in the US camp formed the North Atlantic Treaty Organization (NATO), and in 1954 the Southeast Asia Treaty Organization was established among the US, UK, Australia, France, New Zealand, the Philippines, Thailand, and Pakistan to prevent the spread of communism in Southeast Asia. In 1955, a military alliance of seven countries that were in the Soviet camp formed the Warsaw Pact.

As shown in the chart below the Americans and Soviets invested massively in building up their nuclear weapons and a number of other countries followed. These weapons were never used because of the deterrence of mutually assured destruction. Still there were a couple of times it came close (e.g., Cuban Missile Crisis of 1962). Today, in varying amounts and degrees of capabilities, 11 countries have nuclear weapons or are on the brink of having them. Having nuclear weapons obviously gives one a big negotiating chip in the world power game so it's understandable why some countries would want to have them and other countries would not want other countries to have them. Of course, in addition to building nuclear capabilities, various new other weapons systems were created, and though there were no nuclear wars, there were a number of wars to counter communism and other geopolitical US adversaries, most notably the Korean War in the 1950s, the Vietnam War in the 1960s, the two Gulf Wars in 1990 and 2003, and the War in Afghanistan from 2001 until now. These were costly in terms of money, lives, and public support for the United States. Were they worth it? That's for others to decide. For the Soviet Union, which had a much smaller and weaker economy than the US, spending enough to compete with the US militarily and to maintain its empire was bankrupting.

Nuclear Weapons Stockpile (# Warheads, ln)



Of course military power consists of a lot more than nuclear weapons and a lot has changed since the Cold War. Where do things now stand? While I'm no military expert, I get to speak to some who have led me to believe that, while the US remains the strongest military power overall, it is not dominant in all parts of the world in all ways, and military challenges to it are rising. I'm told that there is a significant chance that the US would lose wars against China and Russia in their geographic areas of strength—or at least would be unacceptably harmed—and would also be unacceptably harmed by some second-tier powers. This is not the good ol' days early after the beginning of the post-1945 world order in which the US was clearly the sole dominant military power that could not be threatened by others. While there are a number of high-risk scenarios, the most worrying one is a forceful move by China to bring Taiwan under its control.

What would the next military conflict look like? It seems clear that new war technologies would be deployed so the war of the future will be very different from the last war in the same ways more recent wars were fought with different technologies than the ones before them. Classically the country that wins wars outspends, out-invests, and outlasts the opposition. ***Because spending on the military takes government money away from spending on social programs, and because military technologies go hand in hand with private sector technologies, the biggest risk for the leading powers is that they lose the economic and technology races over time.***

The Post-War Monetary and Economic Systems

Money and transactions between countries were and still are very different from money and transactions within countries. That is because within countries governments get to control the key aspects of money and transactions (such as what money is used, how much of it there is, what it costs, who handles it and how, etc.), whereas in transactions between countries the key aspects of money and transactions have to be mutually agreed-on. **For example, within a country the government can mandate that only the paper money that it prints is acceptable, whereas between countries only the money that those who are transacting agree is acceptable will be acceptable. That is why gold and reserve currencies have been so important in transactions between countries while people within countries typically exchange this paper with others in the country, oblivious to the fact that that money is not much valued outside the country.**

Within countries individuals were not allowed to own or transact in gold[76] because governments wanted to be able to control the supply and value of people's money and the distributions of people's wealth. People's abilities to own gold could threaten the system because gold is an alternative money that is not controlled by the government that people could use instead of the government's money. So (to simplify a bit) within countries people or companies would use the government-controlled paper money and when they wanted to buy something from another country they would typically exchange their own paper currency for the sellers' paper currency with the help of their central bank and the central bank would settle up with the other central bank in gold. Or, if they were American, they would typically pay in dollars and the seller would turn that money in to its country's central bank for its local currency and that central bank would turn its surplus of dollars in for gold, so gold would leave the US central bank reserve account and go into the other central bank account. As a result, a central bank's gold reserve savings would go down if a country spent more than it earned and would go up if a country earned more than it spent.

As for the particular new post-war monetary and economic systems, there was one for the US-led camp and one for the Soviet-led camp, though there were also some non-aligned countries that had their own non-aligned currencies that were not widely accepted. Those countries in the US camp—which consisted of 44 countries—gathered in Bretton Woods, New Hampshire, in 1944 to make a monetary system that put the dollar and gold at the center of it. The Soviet Union created its own monetary system built around its currency, the ruble. It was a much less significant monetary system.

The Bretton Woods Agreement put the dollar in the position of being the world's leading reserve currency. This was natural because the two world wars made the US the richest and most powerful country by far. It earned this money via its large exports, and by the end of World War II it had amassed the greatest gold/money savings ever. That savings accounted for around two-thirds of the world's government-held gold/money and was equivalent to eight years of import purchases. Even after the war, it continued to earn a lot of money by continuing to export a lot. In other words, the US was very rich.

By comparison, other countries were broke, which made it difficult to buy what they needed from the US and other countries. Besides not having any money Europe and Japan had virtually nothing to sell after the war because their economies were destroyed. **As a solution, and to fight the spread of communism, the US offered massive aid packages to Western Europe and Japan (known as the Marshall and Dodge plans) which were a) good for these devastated nations, b) good for the US economically because these countries used the money to buy US goods, c) good for the US's geopolitical influence abroad, and d) good for reinforcing the dollar's position as the world's dominant reserve currency because they increased its usage. All leading central banks in history have followed variations on this process. Most recently China's Belt and Road Initiative has offered similar advantages to China.**

As for monetary policy, from 1933 until 1951 the amount of money, the cost of money (i.e., interest rates), and where that money went was controlled by the Federal Reserve to serve the greater objectives of the country rather

[76] For example, Americans were by and large not allowed to own gold from 1933 to 1974.

than to let the free market allocate money and credit.[77] More specifically it printed a lot of money to buy debt, capped interest rates that lenders could charge, and controlled what money was allowed to go into, so high inflation did not drive interest rates to unacceptable heights and there were no investment options more attractive than the debt the government wanted people to save in.

Following a brief post-war recession that was due to the government's war spending declining, the US entered a prolonged period of peace and prosperity because the new and mutually reinforcing Big Cycles transpired. Most importantly a new debt cycle began with the new monetary system, wealth and values gaps were reduced so the environment was one of greater unity in pursuit of peace and prosperity, and there was a dominant power that nobody wanted to fight. Also, stock prices were very cheap. As a result, the US economy and markets were very strong for many years to come.

During the post-war adjustment period between mid-1945 and mid-1947 over 20 million people were released from the armed forces and related employment so unemployment rate rose from 1.9% to just 3.9%.[78] At the same time pent-up demand and savings to finance that demand had built up so the removal of rationing laws, which had limited people's ability to buy consumer goods, fueled a consumer spending surge. Cheap mortgages were also available for veterans, which led to a housing boom that fueled the expansion. There was a return to profit making activities, which raised the demand for labor so employment was very strong. Exports were strong because the US government (via the Marshall and Dodge plans) helped build the market for US goods abroad to be strong. Also the US private sector went global and invested abroad from 1945 through the 1970s. That environment was great for business, profits, and stocks because American corporations were extremely profitable after the war at the same time that stocks were very cheap in relation to bonds (e.g., stock earnings and dividend yields were a lot higher than bond yields). Stocks were cheap because those who went through the depression and war years were very risk-averse, so they significantly preferred a safe income stream to a risky one. This set of conditions made a multi-decade prosperity and bull market in stocks that reinforced New York's dominance as the world's financial center, bringing in more investment and further strengthening the dollar as a reserve currency.

This peace and prosperity also provided the funds to improve education, invent fabulous technologies (e.g., go to the moon), and do a lot more. In other words, post-war the United States was in one of those great mutually and self-reinforcing Big Cycle upswings. It was popularly believed in the mid-1960s that economics was a science so we could expect economic prosperity and the stock market always went up with wiggles around the uptrend so one should make "dollar cost average" purchases—i.e., buy consistently so that one would buy on the dips as well as the highs. Because of that confident psychology, which was the opposite of the conservative psychology that existed in the 1950s, the stock market hit its high in 1966, which marked the end of the good times for 16 years, until the 1982 stock market bottom, though nobody knew it at the time because the mood was one of great optimism and the decline from the market top looked like one of those dips that one should buy into.

It was during the 1960s that my own direct contact with events began. I started investing in 1961 at age 12. Of course I didn't know what I was doing at the time and had no appreciation for how lucky my contemporaries and I were. I was born at the right time (just after the war at the beginning of a post-war Big Cycle upswing brought about by the early upswing in the long-term debt cycle and a dominant world power that produced decades of peace, prosperity, and bull markets) in the right place (in the United States, which was the most prosperous and powerful country in the world). I was also very lucky to be raised by parents who loved and cared for me in an era when the American Dream of equal opportunity allowed me to get a good public school education and come out into a job market that gave me equal and excellent opportunity at an exciting time of idealism and dreaming big that inspired me. I vividly remember John Kennedy, a charismatic leader who inspired the nation to journey to the

[77] While 1933 to 1951 was the period from the Roosevelt peg break to the Monetary Accord between the Federal Reserve and Treasury, the policy of explicit yield curve control, in which the Federal Reserve controlled the spread between short-term and long-term interest rates, lasted from 1942 to 1947.
[78] https://www.mercatus.org/publications/economic-history/economic-recovery-lessons-post-world-war-ii-period

moon and to fight to eliminate poverty and assure civil rights.[79] One could dream big, work hard, and make those dreams happen, and successful people were role models then. In the 1960s it was great to be middle class. The United States was the leading manufacturing country so labor was valuable. Most adults could get a good job, and their kids could get a collage education and rise without limitation. Since the majority of people were middle class the majority of people were happy.

Throughout the prosperous 1960s, the US did the classic things that helped the world to become more dollarized. For example, US banks rapidly increased their operations and lending in foreign markets. In 1965, only 13 US banks had foreign branches. By 1970, 79 banks had them, and by 1980 nearly every major US bank had at least one foreign branch, and the total number of branches had grown to 787.[80] Global lending of dollars by American banks boomed. However, as is typical, a) those that prospered overdid things by operating financially imprudently while b) global competition, especially from Germany and Japan, increased. As a result, the lending and the finances of Americans began to deteriorate at the same time as its trade surpluses disappeared.

The Late-1960s Weakening Fundamentals That Led to the End of the Bretton Woods Monetary System

As explained in Chapter 2, when claims on hard money (i.e., notes or paper money) are introduced, at first there is the same number of claims on the “hard money” as there is hard money in the bank. However, the holders of the paper claims and the banks soon discover the wonders of credit and debt. They can lend these paper claims to the bank in exchange for an interest payment so they get interest. The banks that borrow it from them like it because they lend the money to others, who pay a higher interest rate so the banks make a profit. Those who borrow the money from the bank like it because it gives them buying power that they didn’t have. And the whole society likes it because asset prices and production rise.

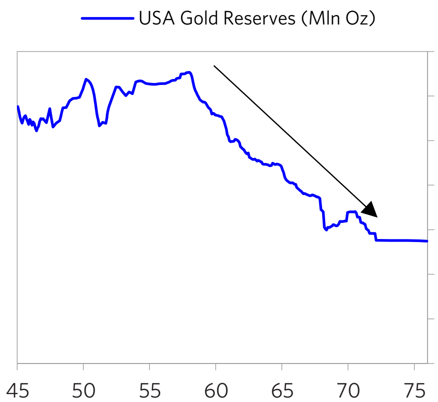
After 1945, foreign central banks had the option of holding interest-rate-paying debt or holding non-interest-rate-earning gold. Because dollar-denominated debt was considered as good as gold, convertible into gold, and higher-earning because it provided interest (which gold didn’t provide), central banks shrank their gold holdings relative to their dollar-denominated debt holdings from 1945 until 1971. As explained in the Appendix to Chapter 2, “The Changing Value of Money,” investors making such a move is a classic behavior and ends when a) the claims on the real money (i.e., gold) substantially exceed the amount of real money in the bank and b) one can see that the amount of real money in the bank (i.e., gold reserves) is going down. That is when no interest rate can be high enough for it to make sense to hold the debt (i.e., claims on the real money) rather than to turn one’s paper money in for gold. At that time a run on the bank occurs and a default and debt restructuring have to happen. That is what led to the breakdown of the gold-linked Bretton Woods monetary system.

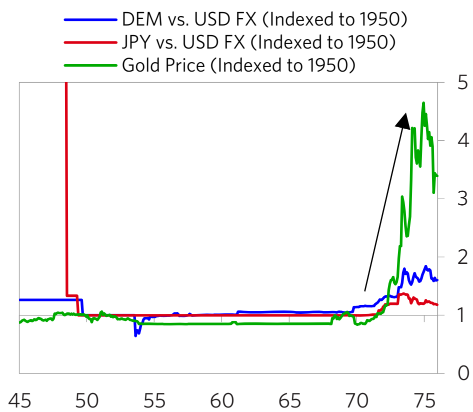
While the following summary repeats some of what was said in prior chapters, it is appropriate to recall it here.

As is typical of this peaceful and prosperous part of the cycle, **in the 1950-70 period there was productive debt growth and equity market developments that were essential for financing innovation and development early on and became overdone later. In the 1960s Americans spent a lot on consumption and Germany and Japan, which had largely recovered from the war, were increasingly effective competitors in producing manufactured goods such as cars so US trade balances were worsening. At the same time, the US government was spending increasing amounts on fighting the Vietnam War and domestic social programs (called “guns and butter”).** To finance all this spending, **the US Federal Reserve allowed the creation of a lot more claims on gold than could actually be converted into gold at the set $35 price.** As the paper money was turned in for the hard money (gold), **the quantity of gold in the US central bank went down at the same time as the claims on it continued to rise. As**

[79] While I subsequently discovered that the equal opportunity I was afforded wasn’t made available to a lot of people, I learned from all the people around me—so it was a common belief for all of those I knew—that it should be made available to all people regardless of race, creed, color, or gender so programs like the Civil Rights Movement and the War on Poverty were aimed at providing it. Unlike my earlier descriptions of earlier times that were solely based on my research, my descriptions of the post-1960s period comes with vivid memories of what I had contact with.
[80] https://www.federalreserve.gov/pubs/bulletin/1999/0999lead.pdf

a result, the Bretton Woods monetary system broke down on August 15, 1971, when President Nixon, like President Franklin Roosevelt on March 5, 1933, broke the US's pledge to allow holders of paper dollars to turn them in for gold. As shown in the below charts, as the US was spending more than it was earning and the paper money claims on gold were turned in for gold, US gold reserves went down until the US government realized that they would run out and stopped allowing the conversion at which time the dollar plunged in value relative to gold and the two leading alternative currencies, which were the German deutschmark and the Japanese yen.





As I recounted in Chapter 2, **I remember the devaluation of the dollar very well. I was clerking on the floor of the New York Stock Exchange at the time.** I was watching on TV as President Nixon told the world that the dollar would no longer be tied to gold. I thought, "Oh my God, the monetary system as we know it is ending," and it was. The next day was Monday. When I got to work I expected there to be pandemonium, with stocks falling. There was pandemonium all right, but stocks were rising. Because I had never seen a devaluation before, I didn't understand how they worked. Then I looked into history and found that on the evening of March 5, 1933, also a Sunday, President Franklin Roosevelt had given essentially the same speech, doing essentially the same thing, which yielded essentially the same result over the following months (a devaluation, a big stock market rally, and big gains in the gold price). As I looked further, I saw that it had happened many times before in many countries for the same reason—**too much debt that needed money to ease the debt burden**—with essentially the same proclamations by top government officials. More recent cases that you might remember include the Fed announcing QE on November 25, 2008, which followed Congress approving Treasury Secretary Hank Paulson's request for the federal government to provide $700 billion for asset purchases; Mario Draghi in July 2012 stating that the ECB would "do whatever it takes," which was followed by massive printing of money and buying of government debt; and March 15, 2020, when President Trump and leaders of both houses of Congress agreed on an over $2 trillion stimulus plan, and Fed Chair Powell announced big interest rate cuts to 0%, a $700 billion QE plan, and a slew of other supports, with both announcements followed by other big increases in these numbers.

The Inflationary and Troubled 1970s

After the 1971 delinking of the dollar and other currencies from gold, the world moved to an unanchored fiat (Type 3) monetary system and the dollar fell in value against gold, other currencies, stocks, and eventually just about everything. The new monetary system was negotiated by the leading economic policy makers of the United States, Germany, and Japan. If you want to read a great description of this process of figuring out how to go from the old monetary system to the new fiat one, I recommend *Changing Fortunes* by Paul Volcker and Toyoo Gyohten. Volcker was the leading American policy maker to determine how the new post-Bretton Woods monetary system would work. **He was the person who knew more about monetary systems and was more at the center of the US dollar system from before the 1971 monetary breakdown (he was the Undersecretary of International Monetary Affairs under Nixon when Nixon severed the link with gold) through the 1970s inflation that resulted from its breakdown. He was eventually called on to break the back of inflation as head of the Federal Reserve from 1979 until 1987. He did more to shape and guide the dollar-based monetary system before, during, and after these years than any other person. I was lucky enough to have gotten to know him well so I can**

personally attest to the fact that he was a person of great character, capabilities, influence, and humility—a classic hero/role model in a world that lacks hero/role models, especially in economic public service. I believe that he and his thinking deserve to be studied more.

As a result of going off the gold-linked monetary system that constrained money and credit growth, there was a massive acceleration of money and credit, inflation, oil and commodity prices, and a panic out of bonds and other debt assets that drove interest rates up and caused a run into hard assets like real estate, gold, and collectibles for most of the next 10 years, from 1971 to 1981.

I remember inflation psychology very well; it led Americans to borrow money and immediately take their pay checks to buy things to "get ahead of inflation." The panic out of dollar debt also led interest rates to rise and drove the gold price from the $35 that it was fixed at in 1944 and officially stayed at until 1971 to a then-peak of $850 in 1980. **I remember inflation becoming the biggest political problem, which led President Nixon to create controls on prices and wages, which created great economic distortions that, along with Vietnam and Watergate, brought him down. Then President Ford passed around buttons that said "WIN," which stood for "Whip Inflation Now." I remember President Carter facing even worse inflation problems, and he brought Volcker back as head of the Fed to break the back of inflation. Volcker was effective, but it cost Carter his presidency. I saw up close how the loose money and credit policies of the 1970s led to** dollar-denominated debt being liberally lent by banks to borrowers around the world, especially to those in fast-growing, commodity-producing emerging countries, and I saw how the world was in the bubble phase of the debt cycle in the late 1970s. **I saw how the panic out of dollars and dollar-debt assets and into inflation-hedge assets, as well as the rapid borrowing of dollars, risked leading dollars and dollar debt to cease being an accepted storehold of wealth.**

While most people didn't understand how the money and credit dynamic worked, they felt the pain of it in the form of high inflation and high interest rates, so it was a chronic political issue. At the same time, in the 1970s there was a lot of pain, conflict, and rebellion due to the war in Vietnam, oil embargoes that led to high gas prices and gas rationing, labor union fights with companies over wages and benefits, Watergate and the Nixon impeachment, etc. **At the time, it was also widely believed that the labor unions were out of control with their demands for more pay and less work and needed to be controlled, so liberalism was losing popularity and conservatism was gaining popularity.** These problems peaked in the late 1970s as inflation spiked and 52 Americans were held hostage for 444 days at the US Embassy in Tehran, Iran. Americans felt that the country was falling apart and lacked strong leadership. At the same time economic conditions in communist countries were even worse.

In China, Mao Zedong's death in 1976 led Deng Xiaoping to come to power in 1978, which led to a shift in economic policies that included capitalist elements like private ownership of businesses, the development of debt and equities markets, entrepreneurial technological and commercial innovations, and even the flourishing of billionaire capitalists—all under the strict control of the Communist Party. This shift in Chinese leadership and approaches, while seemingly insignificant at the time, was going to germinate into the biggest single force to shape the 21st century.

The 1979-82 Move to Tight Money and Conservatism

President Carter, who like most political leaders didn't understand the monetary mechanics very well, knew that something had to be done to stop inflation and appointed a strong monetary policy maker, Paul Volcker, as head of the Federal Reserve in August 1979. In October 1979, **Volcker announced that he would constrain money (M1) growth at 5.5%. I ran the numbers, which led me to figure that, if he really did what he said he was going to do, there would be a great shortage of money that would send interest rates through the roof and would bankrupt debtors who could not get the credit they needed and would drive up their debt-service expenses to levels that they couldn't afford to pay. While it was unimaginable that he would do that, Volcker stuck to that plan despite great political backlash and drove interest rates to the highest level "since Jesus Christ," according to German Chancellor Helmut Schmidt.**

In the 1980 presidential election Jimmy Carter, who was perceived as a nice but weak liberal Democrat, was voted out and Ronald Reagan, who was perceived as a homebody conservative whom Americans expected would

be stronger and impose disciplines where they were needed, was elected. Leading countries at the time (reflected in the G7 that consisted of the US, UK, Germany, Japan, France, Italy, and Canada—which reflects how different the world power balance was 40 years ago versus today) made analogous moves in electing conservatives to bring discipline to their inflationary chaos. On January 20, 1981, the same day Reagan was inaugurated as president, the Iranians released the hostages. Early in their terms, both Reagan in the US and Margaret Thatcher in the UK had landmark fights with labor unions.

Economics and politics have swings between the left and the right in varying extremes as the excesses of each become intolerable and the memories of the problems of the other fade. **It's like fashion—the width of ties and the lengths of skirts. When there is great popularity of one extreme, one should expect that it won't be too long before there will be a comparable move in the opposite direction.**

The move to monetary tightness broke the backs of debtors and curtailed borrowing, which drove the world economy into its worst downturn since the Great Depression. In seeing the stock market, the economy, and the prices of inflation-hedge assets plunging, the Federal Reserve slowly started to cut interest rates, but the markets continued to decline. Then Mexico defaulted on its debt in August 1982. Interestingly, on the day that Mexico defaulted on its debt (August 23, 1982), the US stock market rallied, which was a straw in the wind that I missed.

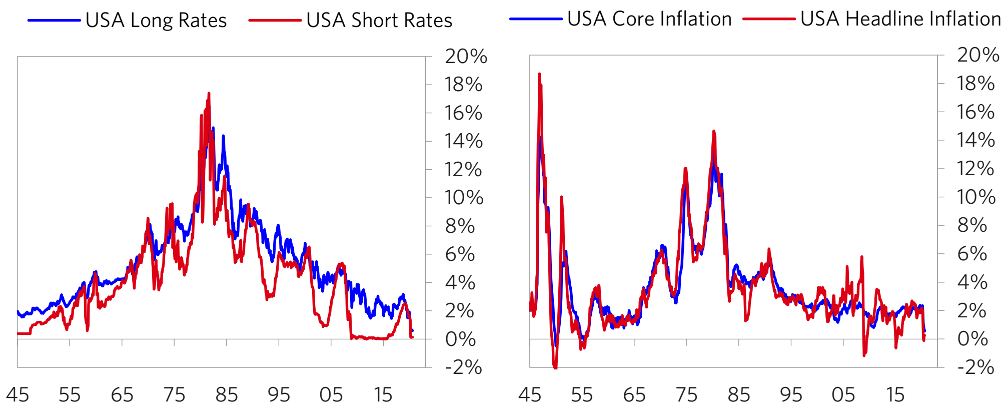
What happened next created another jarringly painful learning experience for me. While I was able to anticipate the debt crisis, which was profitable for me, it also led me to realize that the banks that had lent that money wouldn't get paid, which led me a) to anticipate a debt-default-triggered depression that never came, b) to lose a lot of money betting on it, and c) to be very publicly wrong. As a result of my personal losses and losses of clients, I had to let everyone in my fledgling Bridgewater Associates go and was so broke I had to borrow $4,000 from my dad to help pay for my family's bills. At the same time this painful experience was one of the best things that ever happened to me because it changed my whole approach to decision making. It gave me the fear of being wrong and the humility I needed to balance with my audacity without killing my audacity. It led me to make Bridgewater as an idea meritocracy in which I brought in the smartest independent thinkers I could find to argue with me, which resulted in our doing great over the next 40+ years. I still carry that fear of being wrong, which is why I am doing this research, why I want the greatest thinkers in the world to challenge my thinking and to stress test it, and why I am passing this research to you for you to take or leave as you see fit.

Why was I wrong in 1982, and what did I learn that would be an important principle for the future? What I had missed and learned from this experience was that **when debts are in the currencies that central banks have the ability to print and restructure, debt crises can be well-managed, so they are not systemically threatening**. Because the Federal Reserve could provide the banks that made the loans that weren't being paid back with money, they didn't have a cash flow problem, and because the American accounting system didn't require the banks to account for these bad debts as losses, there was no big problem that couldn't be worked out. I also learned that *t***he value of assets is the reciprocal of the value of money and credit (i.e., the cheaper money and credit are, the more expensive asset prices are) and the value of money is the reciprocal of the quantity of it in existence, so when central banks are producing a lot of money and credit and making it cheaper, it is wise to be more aggressive in owning assets.**

The Disinflationary and Booming 1980s

In the 1980s there was a stock market and economic boom that was accompanied by falling inflation and falling interest rates in the United States at the same time as there were inflationary depressions in the debt-burdened emerging economies that didn't have a central bank to bail them out. The debt-restructuring process progressed slowly from 1982 until 1989 when an agreement called the Brady Bond agreement, named after Nicholas Brady, who was the US Treasury Secretary at the time, was created and started to bring to an end to "the lost decade" in these countries (as agreements were reached with different countries through the early '90s). **This whole 1971-91 up-and-down debt cycle, which profoundly affected just about everyone in the world, was the result of the US going off the gold standard, the inflation that resulted from it, and having to break the back of the inflation**

through tight money policies that led to the strength in the dollar and dramatic fall in inflation. In the markets that big cycle showed up via a) the soaring of inflation and inflation-hedge assets and bear markets in bonds in the 1970s, b) the 1979-81 bone-crushing monetary tightening that made cash the best investment and led to a lot of deflationary debt restructuring by non-American debtors, and then c) falling inflation rates and the 1980s' excellent performance of bonds, stocks, and other deflationary assets. The charts below convey it very well, as they show the swings up and down in dollar-denominated inflation rates and interest rates from 1945 to the present. One needs to keep these moves and the mechanics behind them in mind in thinking about the future.



Through it all the dollar remained the world's leading reserve currency. The entire period was a forceful demonstration of the benefits to the US of having the world's reserve currency that most of the world's debts and money are denominated in.

1990-2008: Globalizing, Digitalizing, and Booming Financed by Debt

Geopolitically, because of its economic failures, the Soviet Union could not afford to support a) its empire, b) its economy, and c) its military at the same time in the face of US President Ronald Reagan's arms race spending. As a result the Soviet Union broke down in 1991 and abandoned communism.

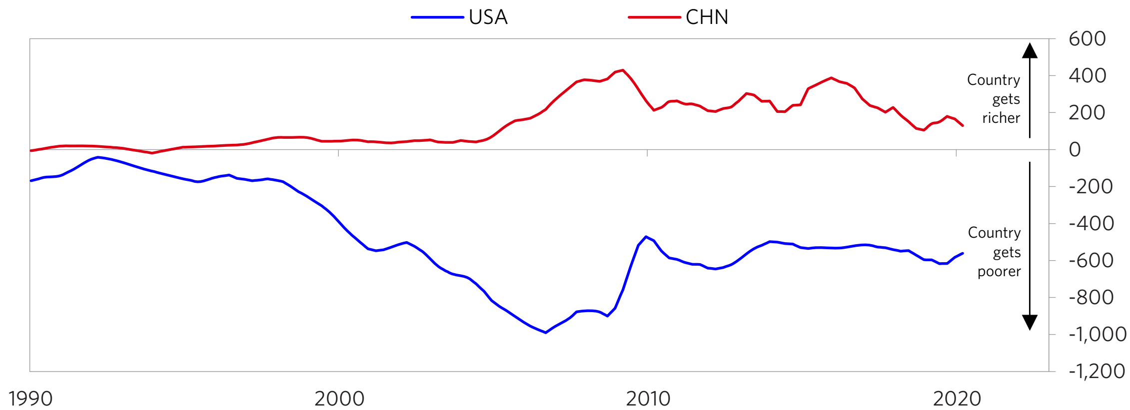
It was apparent that communism failed or was failing everywhere, so many countries moved away from it. The breakdown of the Soviet Union's money/credit/economic system and its large foreign debts were disastrous for the Soviet Union economically and geopolitically through most of the 1990s. That is a whole other interesting story that we won't get into now. In any case, it is notable that in the 1980-95 period most communist countries abandoned classic communism, and the world entered a very prosperous period of globalization and free-market capitalism.

Since the early 1990s there have been three economic cycles that brought us to where we now are—one that peaked in the 2000 dot-com bubble that led to the recession that followed, one that peaked in the 2007 bubble that led to the 2008 global financial crisis, and one that peaked in 2019 just before the 2020 coronavirus-triggered downturn. During this 1990-2000 period we also saw the decline of the Soviet Union, the rise of China, globalization, and advances in technologies that replaced people, which was good for corporate profits and widened the wealth and opportunity gaps.

Notable markers that reflected these developments were making the internet (i.e., the World Wide Web) available to the public on August 6, 1991, which kicked off the dot-com/tech boom, and the creation of the World Trade Organization on January 1, 1995, to facilitate globalization. "Technology development" and globalization that replaced American workers' jobs, especially those in the manufacturing sector, flourished from the 1990s until around Donald Trump's election in 2016. In that roughly 30-year period countries and country borders faded in importance, and items and the incomes they produced were generally made wherever they could be most cost-effectively produced, which led to production and development in emerging countries, accelerating mobility of people between countries, narrowing wealth gaps between countries, and ballooning wealth gaps within them. Lower-income workers in developed countries suffered, while higher-income workers in productive emerging countries made fortunes. Though a bit of an oversimplification, it's accurate to say that **this was a period in which workers in other countries (especially those in China) and machines replaced middle-class workers in the United States.**

The chart below shows the balances of goods and services for the United States and China since 1990 in real (i.e., inflation-adjusted) dollars. As you will see when we look at China in the next section of this book, China's economic reform and open-door policies after Deng Xiaoping came to power in 1978 and the welcoming of China into the World Trade Organization in 2001 led to the explosion of Chinese competitiveness and exports. Note the accelerations in China's surpluses and the US deficits from around 2000 to around 2010 and then some narrowing of these differences, with China still tending to run surpluses and the US still running deficits.

Exports of Goods and Services Minus Imports of Goods and Services (Real, USD Bln, 12mma)

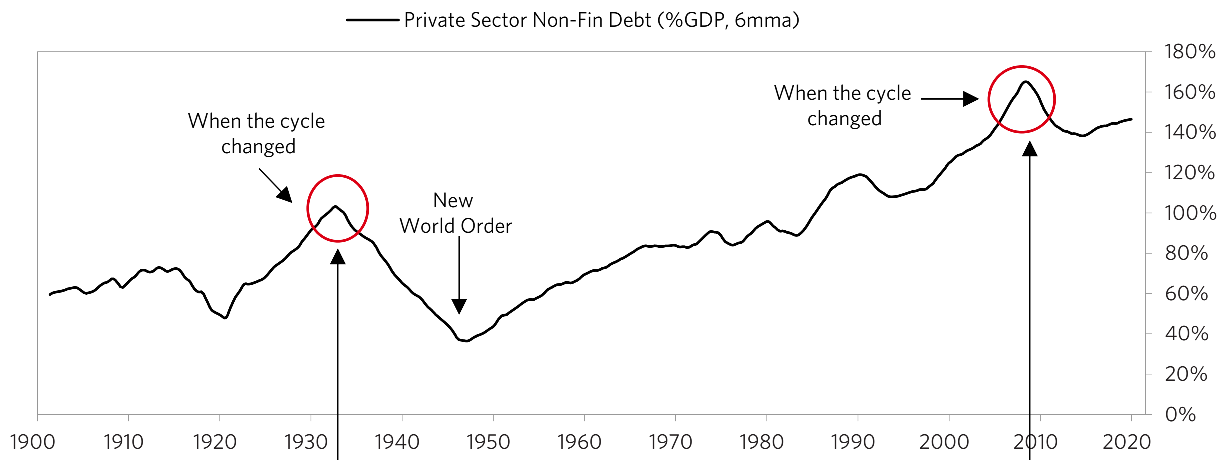


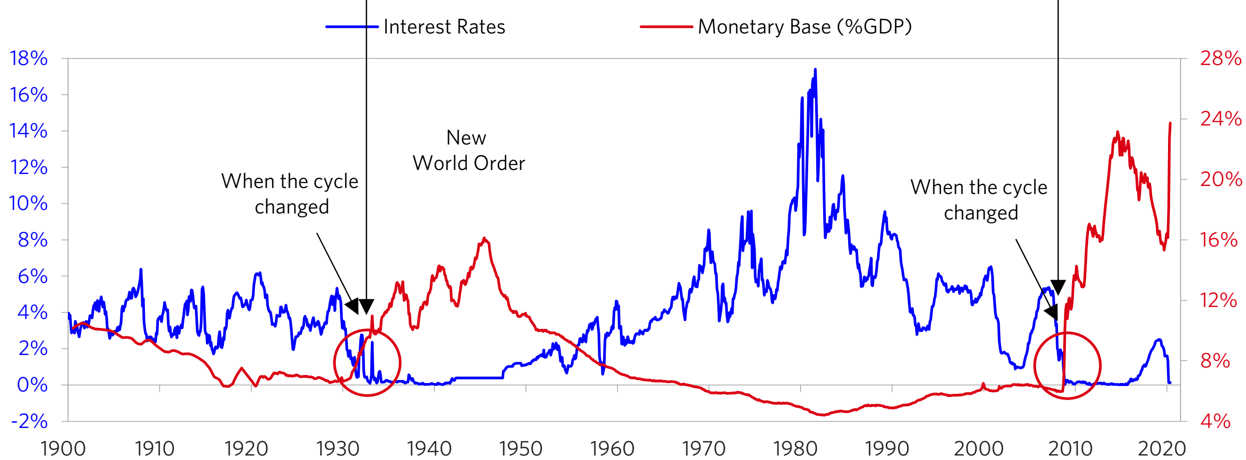
During this period debt and non-debt liabilities like pension and healthcare liabilities grew a lot in the US and debts were used to finance speculations leading up to the dot-com bubble of 2000 and the mortgage bubble of the mid-2000s that led to busts that were stimulated out of by the creation of more money and debt. These debt cycles are both undesirable and understandable because there is a tendency to favor immediate gratification over long-term financial safety, particularly by politicians.

Most people pay attention to what they get and not where the money comes from to pay for it, so there are strong motivations for elected officials to spend a lot of borrowed money and make a lot of promises to give voters what they want and to take on debt and non-debt liabilities that cause problems down the road. **That was certainly the case in the 1990-2008 period.**

Throughout the long-term debt cycle, from 1945 until 2008, whenever the Federal Reserve wanted the economy to pick up it would lower interest rates and make money and credit more available, which would increase stock and bond prices and increase demand. That was how it was done until 2008—i.e., interest rates were cut, and debts were increased faster than incomes to create an unsustainable bubble economy that peaked in 2007. When in 2008 the bubble burst and interest rates hit 0% for the first time since the Great Depression, that changed. As explained more comprehensively in my book *Principles for Navigating Big Debt Crises* there are three types of monetary policy—1) interest-rate-driven monetary policy (which I call Monetary Policy 1 because it is the first to be used and is the preferable way to run monetary policy), 2) printing money and buying financial assets, most importantly bonds (which I call Monetary Policy 2 and is now popularly called "quantitative easing"), and 3) coordination between fiscal policy and monetary policy in which the central government does a lot of debt-financed spending and the central bank buys that debt (which I call Monetary Policy 3 because it is the third and last approach to be used when the first two cease to be effective in doing what needs to be done).

The charts below show how the debt crises of 1933 and 2008 both led to interest rates hitting 0% and were followed by big money printing by the Federal Reserve.



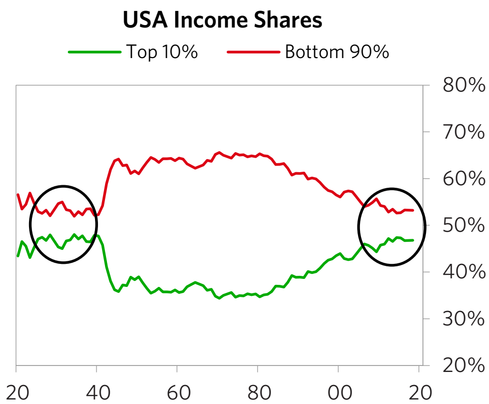


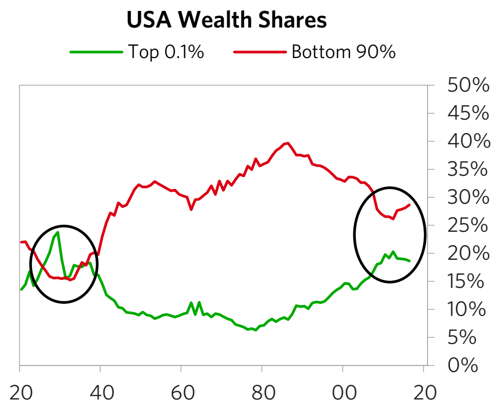
This shift had big effects and implications.

The 2008-20 Money-Financed Capitalist Boom Period

In 2008 the debt crisis led to interest rates being lowered until they hit 0%, which led the three main reserve currency countries' central banks (led by the Fed) to move from an interest-rate-driven monetary policy (MP1) to a printing-of-money- and buying-financial-assets-driven monetary policy (MP2). Central banks printed money and bought financial assets, which put money in the hands of investors who bought other financial assets, which caused financial asset prices to rise, which was helpful for the economy and particularly beneficial to those who were rich enough to own financial assets, so it increased the wealth gap. The putting of a lot of money into the financial system and the driving down of bond yields provided companies with a lot of cheap funding that they used to buy back their own stocks and stocks of related companies that they wanted to acquire, which further bid up stock prices. Basically, borrowed money was essentially free, so investment borrowers and corporate borrowers took advantage of this to get it and use it to make purchases that drove stock prices and corporate profits up. This money did not trickle down proportionately, so the wealth and

income gaps continued to grow. As shown in the charts below, the wealth and income gaps are now the largest since the 1930-45 period.





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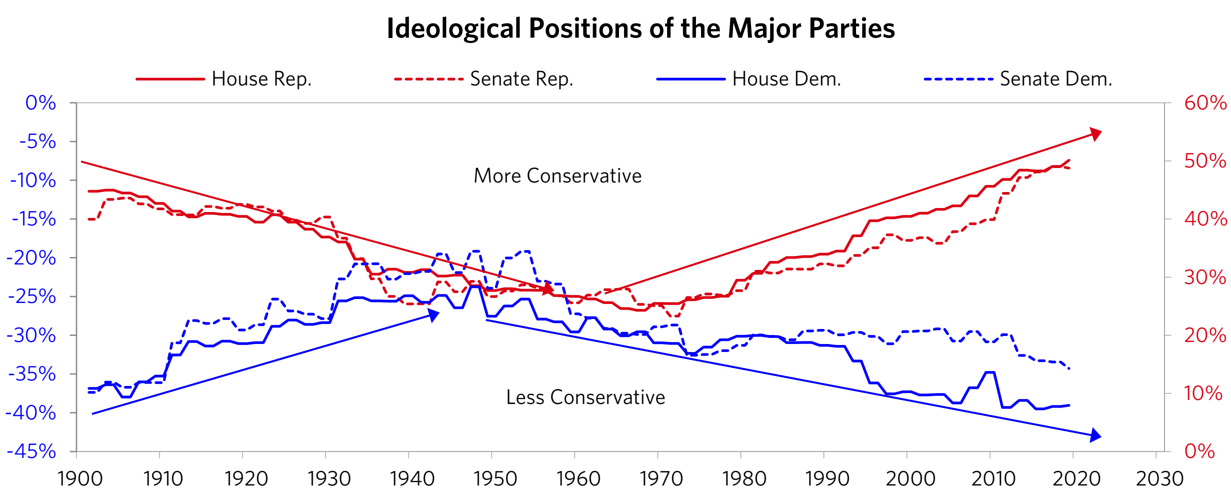
In 2016, appealing to those white, socially and economically conservative voters who were hurt by these trends, Donald Trump, a blunt-speaking businessman/capitalist populist of the right, led a revolt against establishment politicians and "elites" to get elected president by promising to support people with conservative values who had lost jobs and were struggling. He went on to cut corporate taxes and run big budget deficits that the Fed accommodated. This was good for stocks, capital markets, businesses, and the capitalists who owned them. While this debt growth financed relatively strong market-economy growth and created some improvements for lower-income earners, it was accompanied by a further widening of the wealth and values gap leading the "have-nots" to become increasingly resentful of the "haves." At the same time the political gap grew increasingly extreme with intransigent capitalist Republicans on the one side and intransigent socialist Democrats on the other. This is reflected in the two charts below. The first one shows how conservative Republicans in the Senate and House (via the dashed and solid red lines) and how liberal Democrats in the Senate and House (via the dashed and solid blue lines) have become relative to the past. Based on this measure they have become more extreme, and their divergence has become larger than ever before. While I'm not sure that's exactly right, I think it's by and large right.



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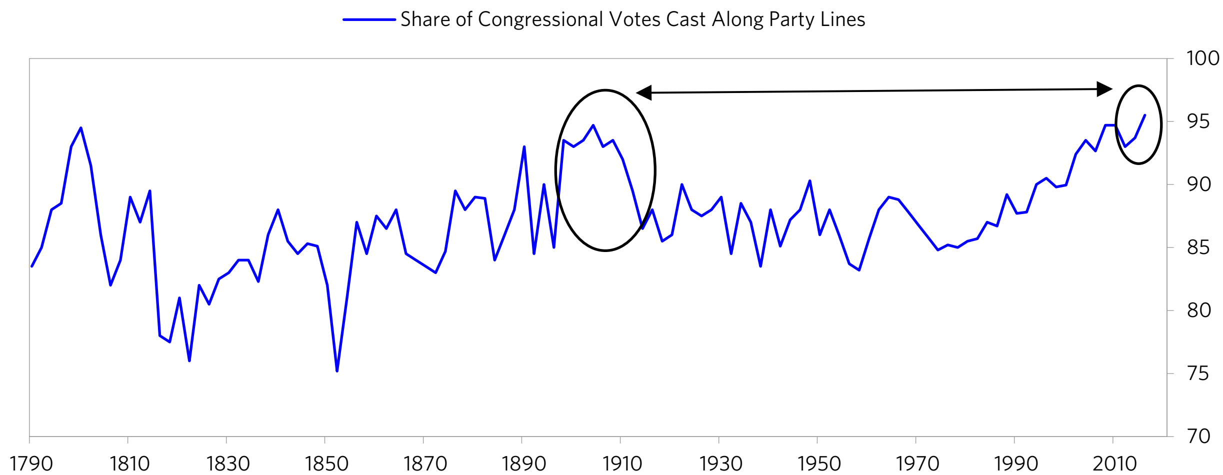
[81] Charts based on data from World Inequality Database.
[82] Based on data from voteview.com.

The next chart shows the percentage of votes along party lines. As shown approximately 95% of the votes in the House and the Senate have been along ideological lines as of 2016, the highest level in over a century. It continues to be reflected in the reduced willingness to cross party lines to compromise and reach agreements. In other words, the political splits in the country have become deep and intransigent.



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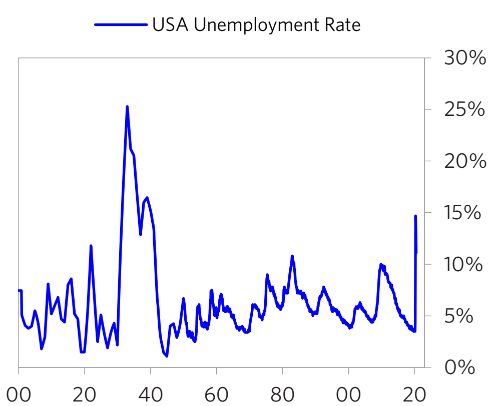
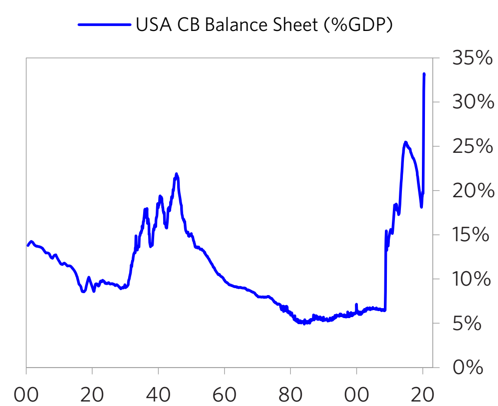
At the same time, as the US dominance and relative wealth decline and rivalries are intensifying in the US under Trump, this more populist and nationalist leader has taken a more aggressive negotiating posture concerning economic and geopolitical disagreements a) with international rivals, particularly China and Iran, and b) with allies such as Europe and Japan regarding trade and paying for military expenditures. The conflicts with China over trade, technology, geopolitics, and capital are the most important and are intensifying. Economic sanctions such as those that were used in the 1930-45 period are being used or put on the table for possible use.

Then, in March 2020 after the coronavirus pandemic came along and with it the isolation it necessitated, incomes, employment, and economic activity plunged, the US central government took on a lot of debt to give people and companies a lot of money, and the Federal Reserve printed a lot of money and bought a lot of debt. So did other central banks. As a reflection of this the charts below show the unemployment rates and central bank balance sheets of major countries for as far back as data is available. As shown, all the levels of central bank printing of money and buying of financial assets are near or beyond the previous record amounts in the war years.

The United States





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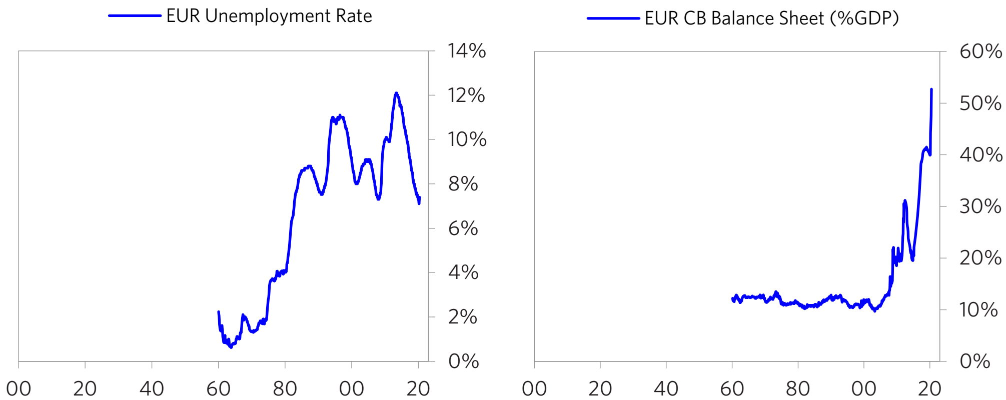
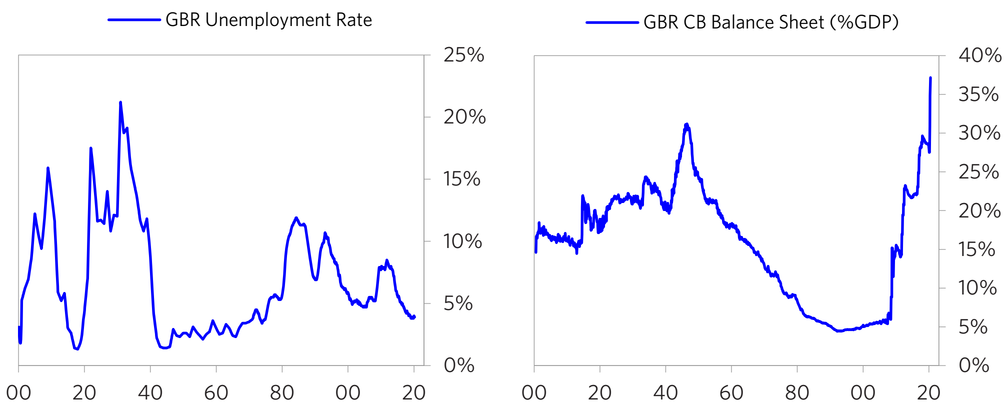
[83] Based on data from voteview.com.

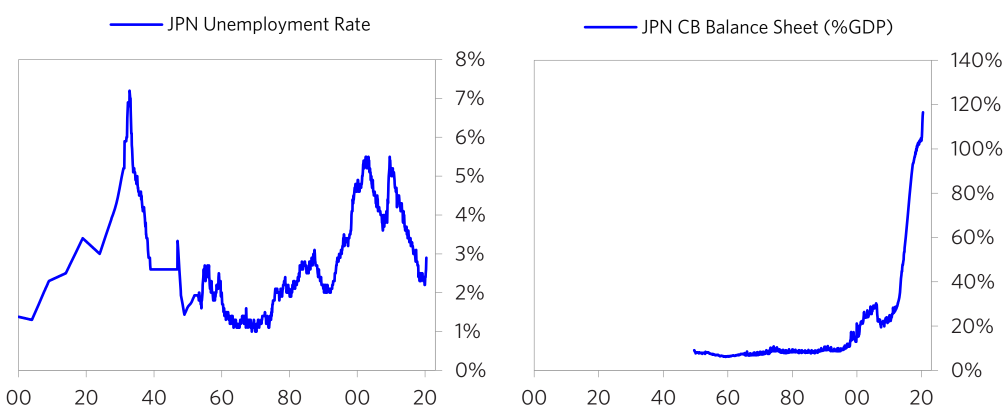
Europe



United Kingdom



Japan



As history has shown and as explained in the appendix to Chapter 2, "The Changing Value of Money," *when there is a great increase in money and credit, it drives down the value of money and credit, which drives up the value of other investment assets*—much like Nixon's August 1971 move, which led me to realize that it was the same as Roosevelt's March 1933 move, which was like Volcker's August 1982 move, which was like Ben Bernanke's November 2008 move, which was like Mario Draghi's July 2012 move, and has become standard operating procedure by central banks that will persist until that approach no longer works.

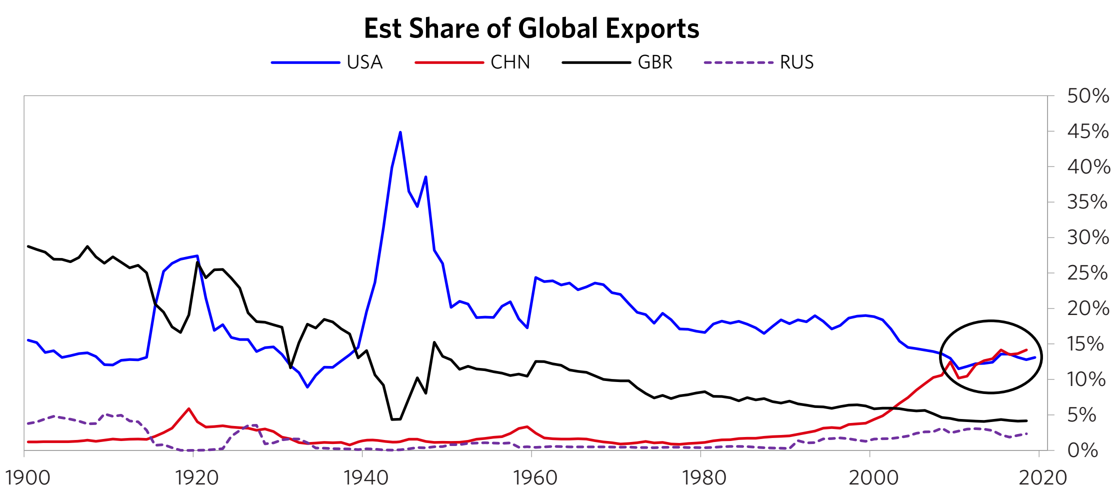
That brings us up to now.

The Post-1945 Story in More Charts and Tables

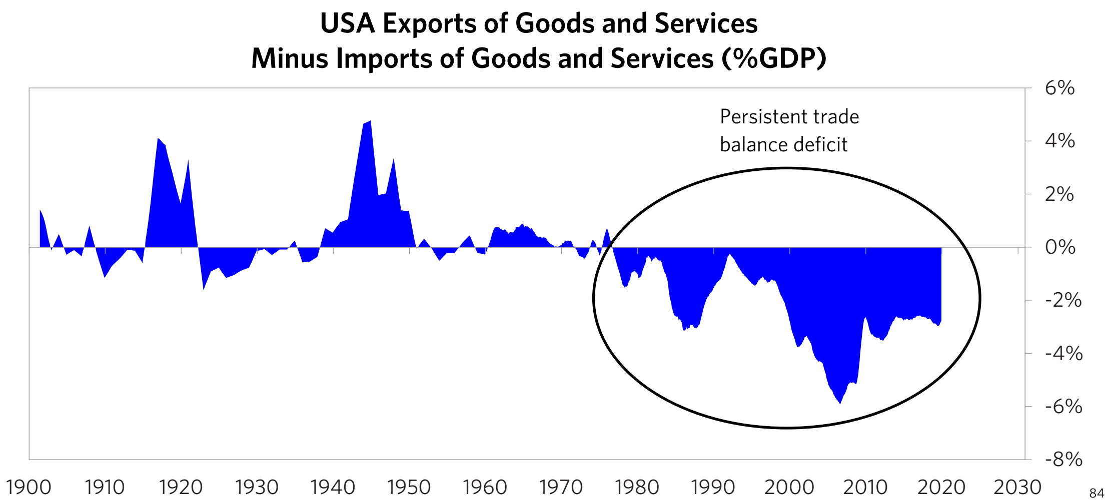
What follows is a series of charts that show the most important financial and economic shifts over the period that we just covered. They tell an interesting story of how things have changed. Before I show you them I'd like to remind you of what the archetypical cycle looks like so you can keep it in mind while reviewing these charts.

As explained in Chapter 2, "The Big Cycle of Money, Credit, Debt, and Economic Activity," for all countries—like for all individuals, companies, nonprofit organizations, and local governments—the basic money equation is reflected in a simple income statement of revenue and expenses and a simple balance sheet of assets and liabilities. When one's revenue, most importantly from what one sells, is greater than one's expenditures, there is positive net income, which leads one's assets to rise relative to one's liabilities (most importantly debt), which, all else being equal, raises one's net savings. When one's income is less than one spends the reverse happens.

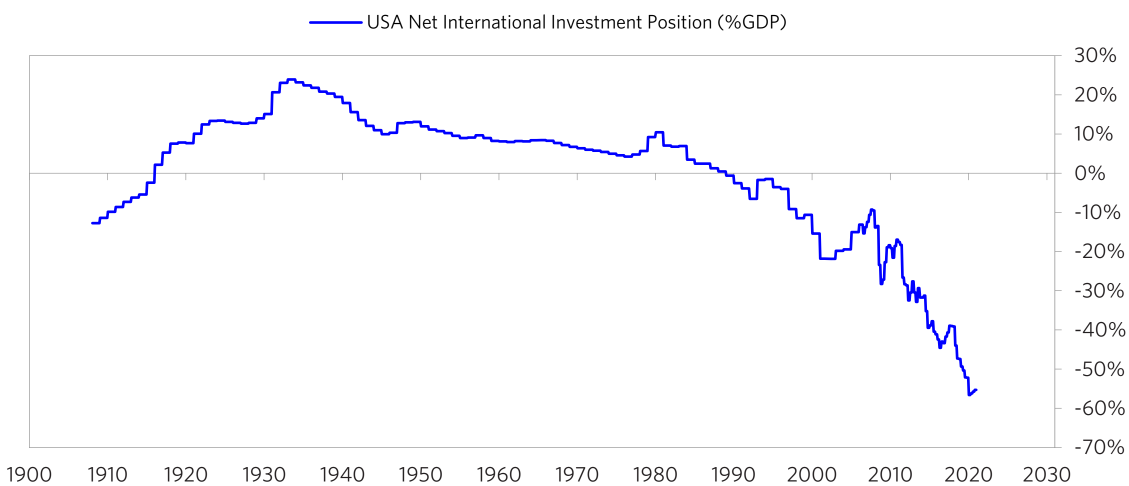
Exports are the main revenue source between countries. To convey the picture of export earnings, the chart below shows the share of global export sales of the United States, Britain, the Soviet Union/Russia, and China from 1900 until the present. It shows which countries were and are the biggest export earners. As you can see, **a) US exports soared while British exports plunged in each of the two world wars (which made the US rich), b) British exports fell from about 30% of the total in 1900 to less than 5% today (which made Britain a lot less rich), while c) after World War II US exports were relatively steady between 20% and 25% until around 2000 when d) Chinese exports rose from around 5% to around 15% now (making China much richer), which is now the largest in the world, and US exports fell to about 14% (making it a much less strong export-income earner).**



But exports are only half the net-income picture. It is export earnings minus import spending (i.e., the balance of goods and services) that makes the net income of a country that comes from trading with foreigners. To convey that picture for the US, the next chart shows US exports of goods and services minus US imports of goods and services since 1900. As shown the US sold more than it bought until around 1970 and then started to buy more than it sold.

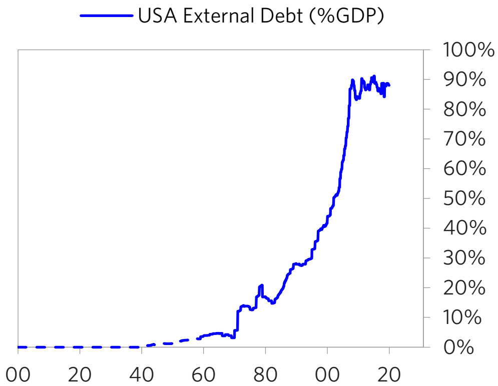


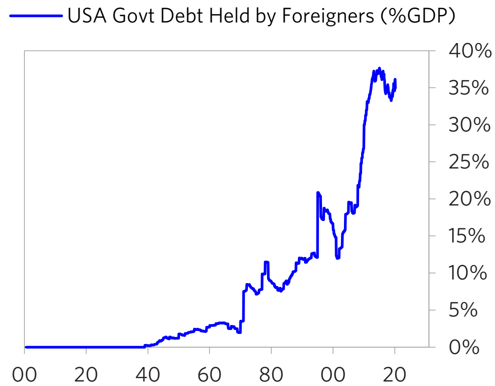
Naturally, *if one buys more than one sells one has to finance the difference by some mix of drawing down one's savings and/or borrowing. One can think of a country's savings as being its foreign-exchange reserves.* The United States financed its deficits by running down its reserves/savings and building up a lot of debt that is owed to foreigners. The chart below shows the net international investment position of the United States as a percent of US GDP. It conveys that, while the US used to hold more foreign assets than foreigners held US assets, that has strongly reversed. That is because the US borrowed a lot from the rest of the world and drew down assets.

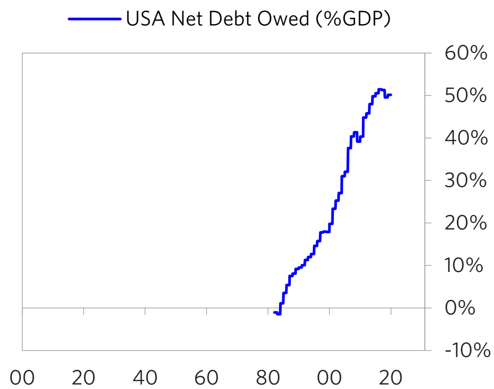


The charts below show the debt piece—i.e., a) the total debt the United States owes the rest of the world and b) the total debt the United States owes the rest of the world minus the total debt the rest of the world owes the United States. As shown, while the US had no significant foreign debt at the beginning of this new world order, it now has large foreign debts. Fortunately for the US (and less fortunately for others), this debt is in US dollars.

[84] Spliced back with goods balance only prior to 1930.

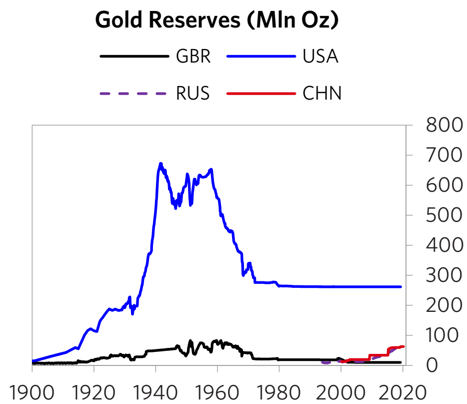


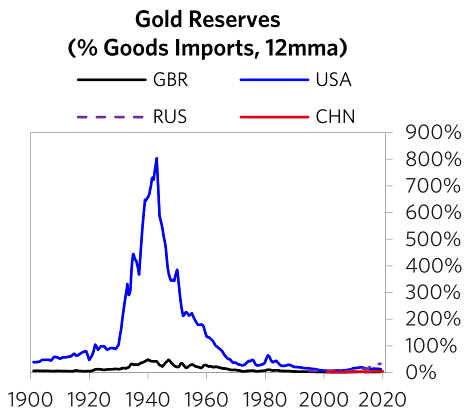


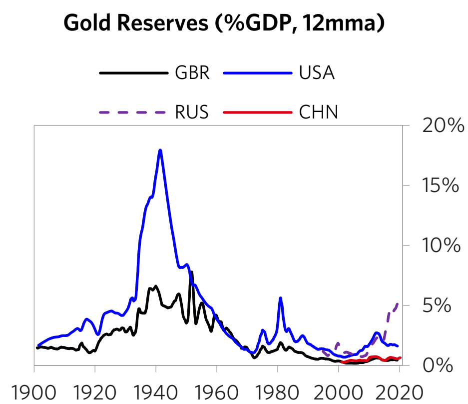


As for reserve assets, the charts below show both gold and non-gold reserves for these four major powers since 1900.

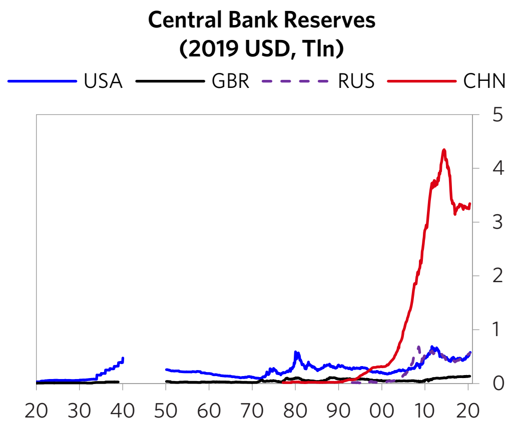
The first set of charts below shows a) the total amount of gold reserves (in volume of gold terms), b) the total value of the gold reserves as a percent of the country's imports, and c) the total value of gold reserves as a percent of the size of the economy for the US, Britain, the Soviet Union/Russia, and China. They are meant to convey a picture of how much savings in gold these countries had and have a) in total, b) in relation to their needs to import from abroad, and c) in relation to the size of their economies. As shown, **the United States had enormous gold reserves—approximately 10x those in the UK—and was tremendously rich by these standards in 1945, which came about by its large net earnings previously shown, and the US spent down these gold reserves until 1971 when it was forced to stop redeeming its paper money for gold. Since then the quantity of US gold reserves has remained virtually unchanged and the value of these reserves has changed with changes in its market price. As shown below the UK drew down its gold reserves to very low levels, while Russia and China have built theirs up in recent years, though they remain low.**

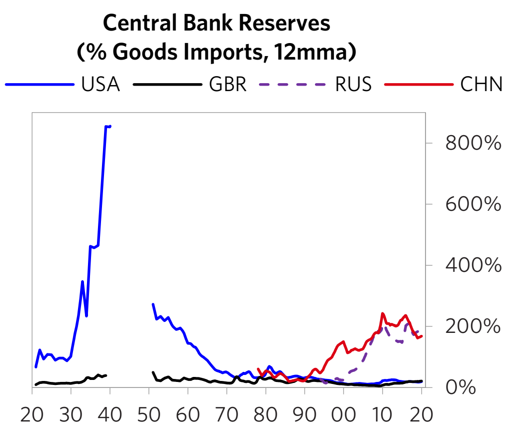


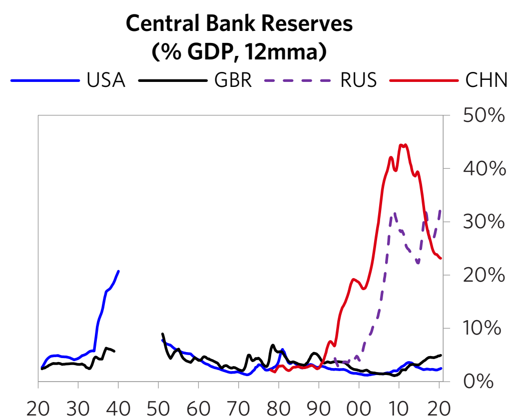




However, gold reserves are not a country's only reserves, especially lately. Since central banks hold foreign-currency debt assets (e.g., bonds) as well as gold assets in their reserve savings, the size of their total reserves does a better job of conveying their savings. The picture of the changes in this measure of relative savings is shown in the charts below. **Note in the charts how enormous the US total reserves were in 1945 (accounting for about 8.5 years of imports) relative to those of other countries and note how enormously the relative sizes of these reserves have shifted since then, especially with the rise in total reserves in China. Note that China now has the largest foreign-exchange reserve and the US doesn't have much.** As shown above, the US and the UK have around 70 days of imports in reserves, while for Russia and China that figure is around 700 and 600 days, respectively. The gap in the chart in the war years period was due to an absence of data during that period. As explained in Chapter 1, a classic dynamic is that non-reserve-currency countries that want to save naturally want to save in reserve currencies, which results in them lending to the reserve currency country. That happened with the US and its dollar-denominated debt. It was especially true in the US-Chinese relationship over the 30-40 years when the Chinese produced goods inexpensively and sold these goods to eager Americans buyers who wanted to pay for them with borrowed money that the Chinese lent them from their export earnings because the Chinese wanted to save in dollars. As a result of that the Chinese are now holding about $1.1 trillion of US debt, which is about a third of their total reserves though less than 5% of US debt. Japan holds about $1.2-1.3 trillion of it. Because these debts are denominated in US dollars the US won't have a problem paying them back because the US Federal Reserve can print the money and pay them off with depreciated dollars.

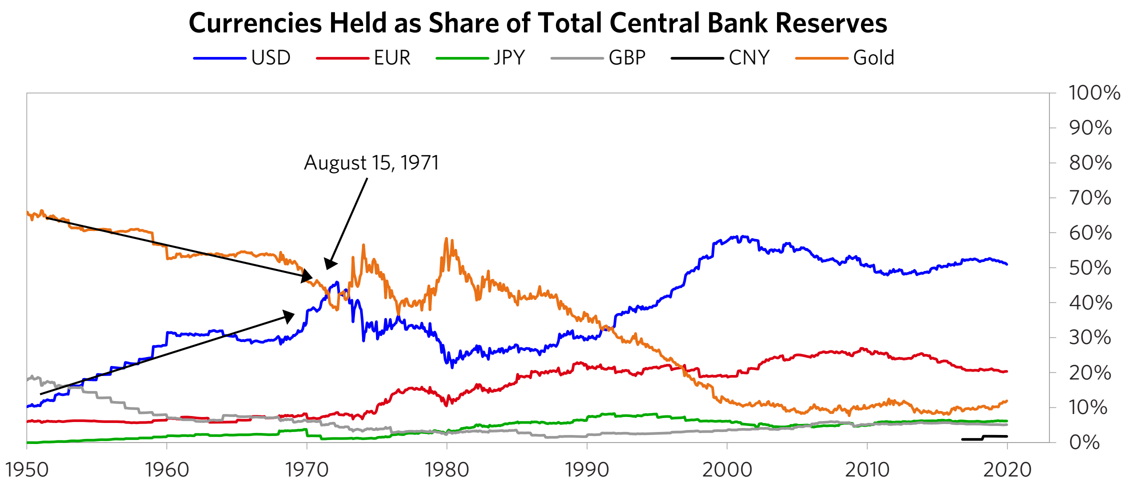




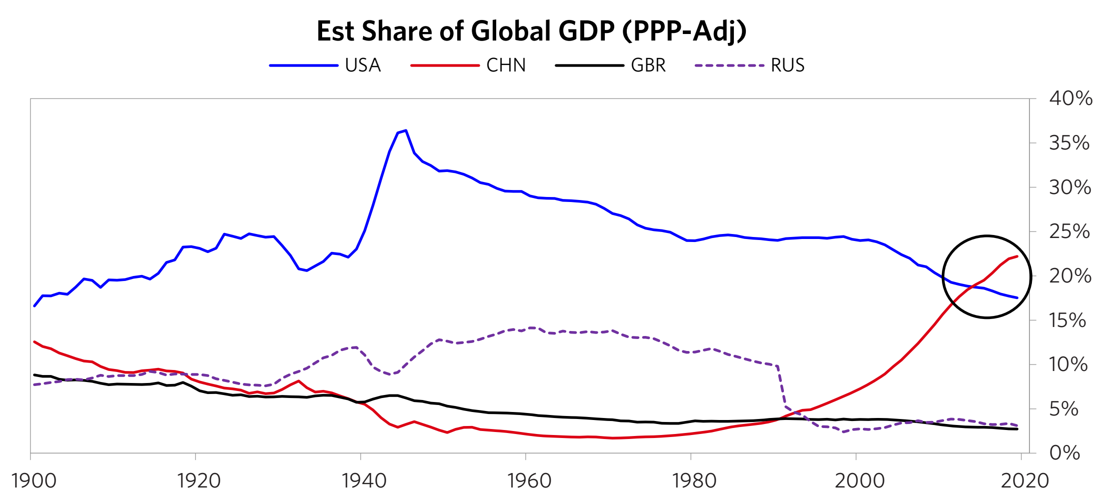


At this time, China has the world's largest reserves. The United States, while not having large reserves, has the power to print the world's reserve currency. ***The ability to print money and have it accepted by the world, which is an ability that only a major world reserve currency country (especially the United States) has, is the most valuable economic power a country can have. At the same time, a country that does not have sizable reserves (which is the position the US is in) is highly vulnerable to not having enough "world money." That means that <u>the US is now very powerful because it can print the world's money and would be very vulnerable if it lost its reserve currency status.</u>***

What types of money and credit have been and now are most important? The chart below shows the percentages of reserve assets that are held in all countries' reserves combined. As shown, gold's share of total reserves has fallen from 65% in 1945 to about 10% today, though devaluation of the dollar and the surge in gold's price led gold's share of central bank reserves to be the largest until the early 1990s, after which its share of world reserves declined to only 10%. **The US dollar accounts for over 50% of reserves held and has unwaveringly remained the primary reserve currency since 1945, especially after it replaced gold as the most-held reserve asset after there was a move to a fiat monetary system.** European currencies have remained steady at 20-25% since the late 1970s, the yen and sterling are around 5%, and the Chinese RMB is only 2%, which is far below its share of world trade and world economic size, for reasons we will delve into in the Chinese section of this book. As has been the case with the Dutch guilder and the British pound, the status of the US dollar has significantly lagged and is significantly greater than other measures of its power. That means that **<u>if the US dollar were to lose its reserve status and significantly depreciate in value it would have a devastating effect on the finances of those countries</u> holding those reserves as well as private-sector holders of dollar-debt assets. Who would be the winners? Those with dollar-debt liabilities and those with non-dollar assets would be the big winners.** In the concluding chapter, "The Future," we will explore what such a shift might look like.



The next chart shows shares of world production for the **US, UK, Russia, and China**. It is shown on a purchasing power parity basis, which means after being adjusted for differences in prices of the same items in different countries. For example, if an item in one country was twice the price of the same item in a different country, it would be counted as twice as much production even though it's the same thing if counted on a non-purchasing power adjusted basis and it would be counted as the same amount of production if counted on a purchasing power parity basis. As shown **the United States produced many times as much as the other major countries produced in 1945, and though its share declined, it remained much higher than any other country until recently when it was surpassed by China. In non-purchasing power parity terms China's output is about 70% of the US output and growing at a significantly faster pace.** Let's not split hairs over small differences in imprecise measures. The most important headline is that **the United States was the dominant economic producer in 1945 and didn't have a comparably sized economic competitor anytime in the last 100 years up until recently and now it does in China, which is of comparable size. China is also growing significantly faster, so if this continues, it will soon be as dominant an economic power as the United States was in 1945.**



Where the US Is in Its Big Cycle

I think we know roughly where it is.

As previously explained the Big Cycle of rising and declining empires and their reserve currencies is a cycle that begins with a new world order that comes after a war in which a) there is an environment of peace, prosperity, and productivity in which debt growth is allocated well and sustainably (i.e., most debts are used productively to produce incomes that are greater than debt service so most debts are paid back), equities do well, and the society gets rich with individuals benefiting from the prosperity, though they benefit disproportionately, which eventually leads to b) excessive debt growth to finance speculation and over-consumption, which results in incomes being inadequate to service the debt, which leads to c) central banks lowering interest rates and providing more credit, which produces greater wealth gaps and more over-indebtedness, until d) over-indebtedness becomes so large and central banks lose their ability to create credit growth that produces self-funding debt growth (i.e., in which debts don't accelerate relative to the incomes needed to service them without central bank subsidies), which e) produces severe economic downturns with large wealth gaps that lead to internal conflict and leads to f) lots of printing of money, big debt restructurings, and big wealth distributions via tax changes g) that create financial, economic, and political vulnerabilities for the leading power relative to emerging powers that lead to wars that define the winners and losers and produce the new world order.

The stats seem to suggest that the US is roughly 75% through that cycle, +/- 10%.

Is it reversible?

Most world powers that experience this cycle have their "time in the sun," which is brought about by the uniqueness of their circumstances and the nature of their character and culture (i.e., they have to have the essential elements to work hard and smart, be disciplined, become educated, etc.) and have their decline phases continue through them slipping into relative obscurity. Some do this decline traumatically, and some do it gracefully.

From studying history we can see that reversing a declining power is very difficult because that requires undoing a lot that has already been done. For example, bringing one's finances to the point that one's spending is greater than one's earnings and one's assets are greater than one's liabilities can only be reversed by either working harder or consuming less, which is not easily done.

Still, this cycle needn't transpire this way if those in their rich and powerful stages stay productive and safe by continuing to work hard and smart, earn more than they spend, save a lot, and make the system work well for most of the population. A number of empires and dynasties have sustained themselves for hundreds of years and the United States, at 244 years old, has proven itself to be one of the most durable now in existence. I think the most important question is how we adapt and change by asking ourselves and honestly answering some difficult questions. For example, while the capitalist profit-making system allocates resources relatively efficiently, we now need to ask ourselves, "Who is it optimizing these efficiencies for?" and "What should be done if the benefits are not broad-based?" "Will we modify capitalism so that it both increases the size of the pie (by increasing productivity) and divides it well?" These questions are especially important to answer in an era when the greatest efficiencies can be gained by technologies replacing people so employing people will increasingly become unprofitable and inefficient, making one uncompetitive. "Should we, or should we not, invest in people to make them productive even when it's uneconomic to do so?" "What if our international competitors choose robots over people so we will be uncompetitive if we choose to employ people rather than robots?" "Is our democratic/capitalist system capable of asking and answering such important questions and then doing something to handle them well?" So many more important questions come to mind. When we think about the future, which we will do in the concluding chapter of this book, we will have to wrestle with these questions and many other difficult ones.

Chapter 6:
The Last 500 Years Part 3:
The Big Cycle of China and Its Currency

Chapter 6: The Last 500 Years Part 3: The Big Cycle of China and Its Currency

Preface: *Several people told me that it is risky for me to write this chapter because the US is in a type of war with China and emotions are running high, so many Americans will be angry at me when I say complimentary things about China, many Chinese will be angry at me when I say critical things about China, many people on both sides who disagree with something I say will be angry at me for saying it, and many in the media will distort what I say. However I can't not speak openly out of fear of reprisals because the US-China relationship is too important and too controversial to be left untouched by people who know both of these countries well, and for me not to speak honestly about this situation would cost me my self-respect.*

What I am passing along here is just the latest iteration of my learning process. My process is to learn through my direct experiences and through my research, to write up what I have learned, to show it to smart people to have them attack it in order to stress test it, to explore our differences, to evolve it some more, and do that over and over again until I die. So this study is the product of my having done that for the past 36 years up until now. It is incomplete, it is right and wrong in ways yet to be discovered, and it is provided to you to use or to criticize in the spirit of helping us together find out what's true.

This chapter is about China and Chinese history brought right up to this moment. It is meant to convey where the Chinese are coming from. The next chapters are about US-China relations and wars that are extensions of the backgrounds covered in the last two chapters and this chapter.

My Background

Though I'm no expert on Chinese culture and the Chinese way of operating, I have had numerous direct experiences with China over nearly four decades, I have done extensive historical and economic research about China, and I have a US and global perspective that has been gained because of my need to make practical macroeconomic bets. That has given me an uncommon perspective of where China has been and what's going on with it now that might be helpful to those who haven't had such an extensive exposure.

More specifically, the perspective I am passing along to you here has been gained from 36 years of interfacing with Chinese people about Chinese and world issues (mostly economics and markets in China and the world) and from doing a lot of research. Through my experiences and by getting to know some of China's top leaders, in addition to learning about Chinese economics and markets, I learned a lot about Chinese culture, how it operates today, and how it has evolved over thousands of years: from notions of how family members and others should behave with each other to Confucian thinking and neo-Confucian thinking, and through various dynasties and modern leaders to the lessons these events provide about how leaders should lead and how followers should follow. These typical Chinese values and ways of operating are what I'm referring to when I say "Chinese culture," which I have seen manifested over and over in my experiences and my research. For example, from my personal experiences I could see how Lee Kuan Yew, the Prime Minister of Singapore, and Deng Xiaoping, the leader who initiated China's reform and opening up, were connected by Confucian values coexisting with capitalist practices so that they together could explore how China could have a "socialist market economy with Chinese characteristics."

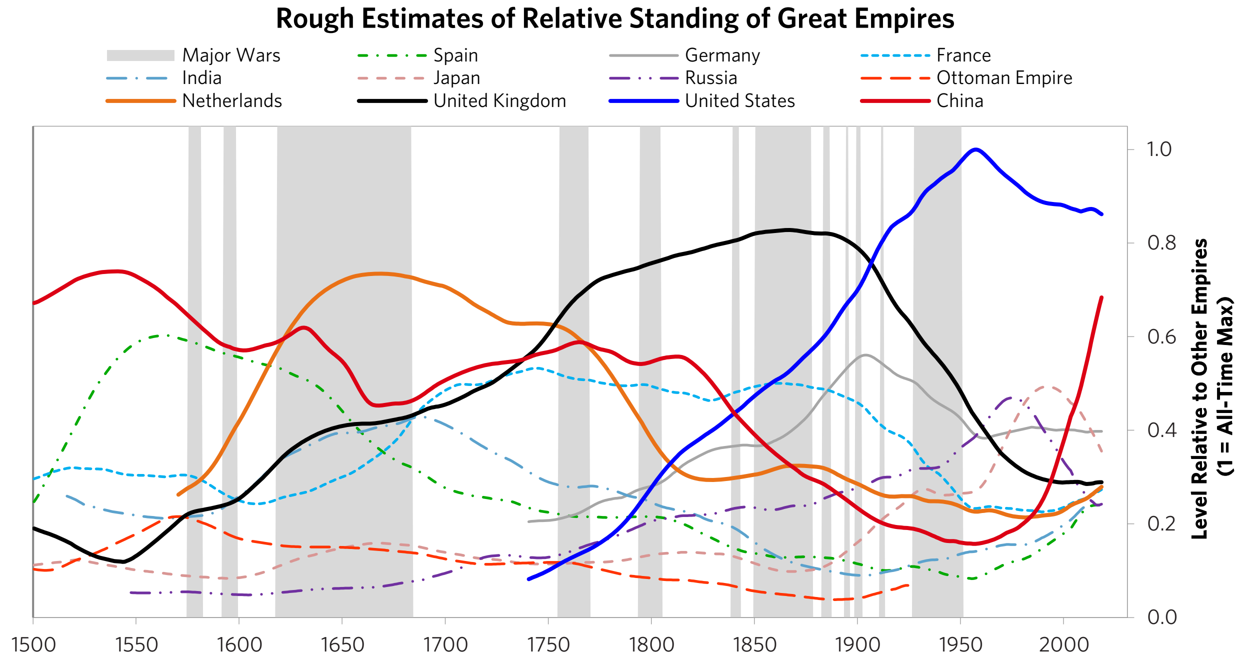
Over the last couple of years I have also undertaken the study of Chinese history as part of my study of the rises and declines of empires and their currencies in order to learn the timeless and universal principles about how empires rise and decline and to help me understand how the Chinese, especially their leaders, who are greatly influenced by history, think. I did this study by researching deeply with the help of my research team and triangulating with the some of the most knowledgeable Chinese, American, and non-American scholars and practitioners on the planet. While I can be pretty sure about my impressions of the people and things that I had direct contact with (which makes me a lot more certain about the assertions I am making about the Chinese than about the Dutch and British empires I described earlier in this book), I of course can't be as certain about the people and circumstances that I haven't had direct contact with. So my thoughts about them (e.g., especially historical figures such as Mao Zedong) are more conjecture based on the extensive research I have tapped into.

Over my 36 years of experience with China, I have come to know many Chinese people from the lowest to some of the highest in rank in an up-close and intimate way, and I have experienced China's recent history just as I have experienced America's. As a result, I believe that I see both the American and Chinese perspectives pretty well. I will do my best to convey them here. I urge those of you who haven't spent considerable time in China to get rid of any stereotypes you might have of the old "communist China" and to look past the pictures that are often painted for you by biased parties who also haven't spent much time there, because they're wrong. I urge you to triangulate whatever you are hearing or reading with people who have spent lots of time in China working with the Chinese people. As an aside, I think that the blind and near-violent loyalties and media distortions that stand in the way of thoughtfully exploring different perspectives are a frightening sign of our times.

To be clear, I'm not ideological and I don't choose sides ideologically. For example, I don't choose an American side or a Chinese side based on whether it aligns with American, Chinese, or my own ideological beliefs. I'm practical like a doctor who approaches things through logic and believes in what works well through time. My study of history and my thinking about cause/effect relationships are what have led me to my beliefs about what works well. What I believe is most important in making a country work well was laid out in 17 different measures of strength at the beginning of this book and more narrowly in the eight measures I have been referring to regularly. So, when I look at China, it is through the lens of these factors that I am judging it. I also try to see their circumstances through their eyes. The only thing I can do is beg for your patience and open-mindedness as I share what I've learned with you.

This chapter is a continuation of our look at the leading empires over the last 500 years, starting with the Dutch and British empires in Chapter 3, and the US Empire in Chapter 4. In this chapter, we will touch on China's long history and the thinking that it has produced, we will briefly review its decline from pre-eminence in the early 1800s to insignificance early in the 20th century, and we will more carefully look at its recent emergence from insignificance to its near comparability to the world's leading empire today—and its likelihood of becoming the most powerful empire in the world not many years in the future.

In earlier chapters we saw how the Dutch and then the British each became the richest and most powerful reserve currency empire and then declined into relative insignificance in cycles that were driven by timeless and universal archetypical cause/effect relationships. Then we saw how the United States replaced them as the dominant world empire broadly following the same archetypical cyclical patterns driven by the same archetypical cause/effect relationships. We saw how some of its eight key powers rose and declined (i.e., education, economic competitiveness, shares of world trade and output), while others continued to excel (innovation and technology, reserve currency status, financial market center), and we looked at how a number of the other key drivers (e.g., money and debt cycles, wealth/values/political cycles, etc.) are transpiring in the US. In this chapter we will study China's way of looking at its past and bring us up to this moment with the aid of objective statistical measures that help paint the picture objectively. As in the US chapter we will cover the older history superficially; the 220 years up until 1949 in a bit greater detail; and the last 40 years, when China evolved from relative insignificance to become a great rival power to the United States, in the most detail. That will complete our examination of the rises and declines of the leading empires over the last 500 years. Then, in the next chapter, we will look at US-China relations and wars as they now exist, and in the concluding chapter of this book, "The Future," we will try to squint into the future.



1.

China's Giant History in Brief

Anyone who wants to have a fundamental understanding of China needs to know the basics of China's roughly 4,000-year history, the many patterns that have repeated in it, and the timeless and universal principles that the leaders of China have gained from studying these patterns—even though getting that basic understanding is quite an undertaking. China's history is so complicated and there are so many opinions about it that I am confident that there is no single source of truth, and I am especially sure that I'm not it. Still there is a lot that knowledgeable people agree on, and I have found many scholars and practitioners, both Chinese and non-Chinese, who have valuable bits that make the exercise of trying to piece them together—along with other bits of history like statistics and written histories—very valuable as well as damned fascinating. While I can't guarantee that my perspectives about China are the best ones to believe, I can guarantee that they have been well-triangulated with some of the most informed people in the world and are presented here in an exceptionally forthright way. Here it is in brief.

China's civilization with its highly civilized behavior has a long and continuous history that began about 4,000 years ago. I can't possibly recount the extensiveness of it because there are far too many dynasties from the Xia Dynasty around 2000 BC (which lasted about 400 years and was highly civilized and known for creating the Bronze Age) through over 1,000 years of various dynasties to Confucius around 500 BC (whose philosophy greatly influenced how the Chinese behave with each other to this day), to the Qin Dynasty (which united most of the area we now call China for the first time in 221 BC), then through the highly developed Han Dynasty (which developed governance systems that are still in use today) that lasted from around 200 BC to around 200 AD, and then a number of other dynasties until the Tang Dynasty in 618. While I scanned China's history from the Xia Dynasty[85] through the year 600 AD (i.e., just before the remarkable Tang Dynasty), I looked at most of the dynasties since then more carefully to see the patterns. I wrote up my study of them that I will share later. I will now focus very briefly on the post-600 AD period.

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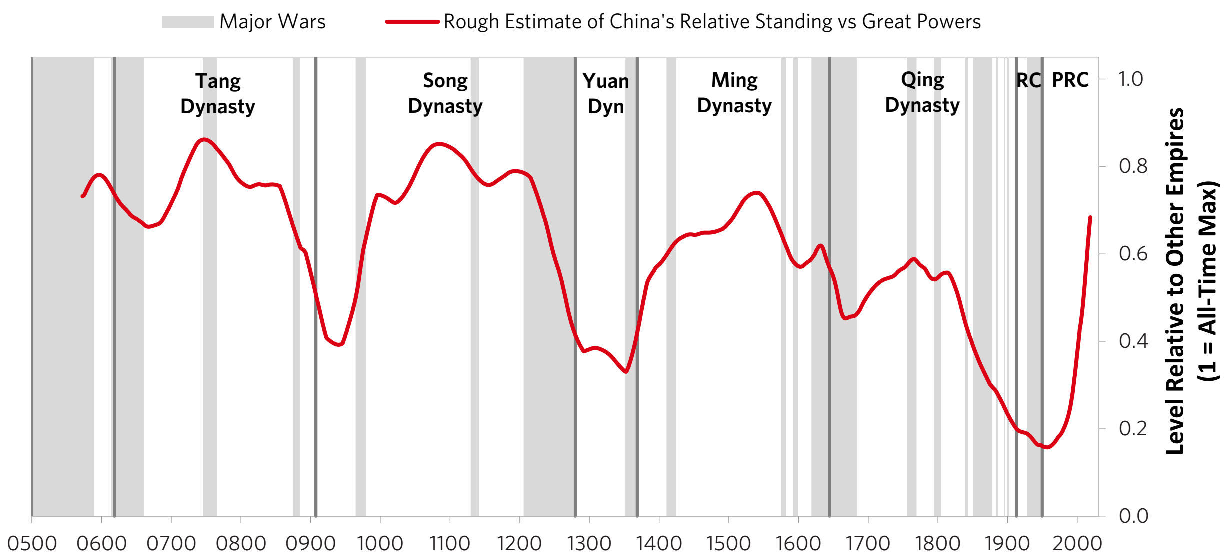
[85] When I decided to study China's history to understand its patterns I wanted to begin with the beginning of advanced civilization and I couldn't find its beginning because it went back so far. I would have had to start more than 2,000 years before Christ and I wouldn't have started at the beginning. I chose to superficially look at what happened around 2070 BC by looking at the Xia Dynasty, which brought us the Bronze Age, writing, and the stratification of society along political and religious lines. I started to look a bit more carefully around 500-600 BC, so that I could start around the time of Confucius and Confucianism, and Lao Tzu and Taoism, which has shaped how the Chinese are with each other and with others. Understanding them and their thinking is even more important to understanding Chinese thinking than understanding Jesus, Aristotle, and Socrates is to understanding Western thinking. Then I quickly worked my way to the year 600 AD to just before the Tang Dynasty and looked more closely at what has happened since then, though my examination was still very superficial relative to what was there to study.

In the chart below I plotted the same overall power gauge that I showed you in the first chart but applied only to China from 600 AD until now. It conveys how powerful China was relative to other empires in the world over that time frame. While there were many more dynasties that existed in various parts of the country and various other slivers in time, I didn't show them in this chart because that would have produced too much detail for the really big picture to come through. **As you can see, for most of that time China was one of the world's most powerful empires, with the notable exception from around 1840 until around 1950 when it went into a steep decline. As shown, around 1950 it started to rise again, at first slowly and then very rapidly, to regain its position as one of the two most powerful empires in the world.**



Over most of last 1,400+ years most dynasties were very powerful, civilized, and cultured. Under the Tang Dynasty, China expanded its borders extensively and experienced a cultural flourishing; in the Northern and Southern Song Dynasties (from the 900s to the 1200s), China was the most innovative and dynamic economy in the world; in the Ming Dynasty (1300s to 1600s), China was a great power that enjoyed an extended wonderful period that was both very prosperous and very peaceful; and in the early Qing Dynasty (1600s to 1700s), China had its maximum territorial expansion, governing over a third of the world's population while having an extremely strong economy. Then in the early 1800s and through the first half of the 1900s, China lost its power while European countries, and especially the British Empire, gained theirs. The shift of relative wealth and power from Asia to Europe from around 1800 until recently, which created one of the biggest wealth and power shifts in world history in which China was uniquely weak, should be considered an anomaly rather than a norm. This evolution and the lessons this history provides are very much in the minds of Chinese leaders and are especially interesting to me.

In the chart above, note the cyclical ups and downs. The reasons for them are mostly the reasons I explained in my description of the archetypal Big Cycle—because of the gaining and losing of the most important strengths and weaknesses in cyclical and mutually reinforcing ways. (My more detailed descriptions of the rises and falls of these dynasties will be given to you in Part 2 of this book, which covers the major cycles of the major empires and dynasties covered in this book in greater depth.) Notice that these dynasties' Big Cycles typically lasted about 300 years. Within each of these were the different stages of development and the things done by emperors to bring the dynasties from one stage to the next, and the reasons for setbacks and declines. In other words, there are many lessons embedded in these histories. That is why Chinese leaders study history to learn lessons that help them plan for the future and deal with the cases at hand. Believe me, the lessons learned from these histories are now guiding Chinese leaders' decision making. What was especially interesting to me was to see the patterns of the archetypal Big Cycle go back much further in history and be described in such detail because China's continuous history is so ancient and so well-documented. It has also been interesting to see what happened when the Eastern and Western worlds met each other and interacted from the 17th through the 19th centuries and how, as the world has become much smaller and more interconnected since then, the Chinese and Western Big Cycles affected each other so that they are now one of the biggest influences on both these two regions and the entire world.

Probably the most important thing I learned from studying hundreds of years of history carefully and thousands of years of history more superficially in a number of countries is to see things very differently than I did before I did this study. I found shifting my perspective in this way to be similar to going to a much higher level in Google Maps because I could see contours of history that I never saw before. I also could see that the same stories played out over and over again for basically the same reasons, and I learned timeless truths about how the really big movements take place and how to deal with them better. Besides affecting how I view things, I see how studying so much history up to the present has greatly affected how the Chinese think relative to how Americans think. From living in the United States, which is a country that has about 300 years of history (because Americans think their history began when settlers from Europe arrived) and from living in a country that isn't as much interested in looking at history and the lessons it provides, I can see that the perspectives of Americans and the Chinese are very different.

For example, to Americans 300 years is a very long time. For the Chinese it is very recent. While having a revolution or a war that will overturn our systems is unimaginable to an American, it is inevitable to a Chinese person (because the Chinese have seen that they have always happened and the Chinese have studied the patterns of why they have happened). While most Americans focus on particular events, especially those that are now happening, most Chinese, especially their leaders, see evolutions over time and put what is happening in the context of them. While Americans fight for what they want in the present, most Chinese strategize how to get what they want in the future. As a result of these different perspectives the Chinese are typically more thoughtful and strategic than Americans, who are more impulsive and tactical. I also found Chinese leaders to be much more philosophical (literally readers of philosophy) than Americans leaders. If you read their writings and their speeches, you will find this to be true. Philosophies of how reality works and how to deal with it well are woven into their thinking, which is expressed in their writings.

For example, in a meeting with Liu He soon after he had his first negotiation session with President Trump, he conveyed his concerns about the possibility of US-China conflict. Liu He is Vice Premier of China responsible for economic policy and also a member of the Politburo. We have known each other for many years, during which we have had informal conversations about the Chinese and world economies and markets. Over those years we came to develop a friendship. He is a very skilled, wise, humble, and likable man. He explained that going into his meeting with Trump, he was concerned about how it would go, not because of the trade negotiations, which he was confident didn't have any issues that couldn't be worked out, but because he was concerned about the worst-case scenario where tit-for-tat escalations could get out of control and lead to more serious consequences. He referred to history and gave a personal story of his father to convey his perspective that wars were so harmful and the damage could be worse if we had another war today. He focused on the World War I example. We exchanged views on long-term cycles in history and his belief in the concept of a community with a shared future for humankind. He talked about reading the *Tao Te Ching* by Lao Tzu and *Critique of Pure Reason* by Immanuel Kant, and how he realized that he should do his best, and then the outcomes would take their course. From there he gained his calmness. I told him that I shared that perspective. I told him about the "Serenity Prayer" and suggested meditation to him as a way of helping to obtain that perspective.

I tell this one story to share with you one Chinese leader's perspective on the risk of wars and to also give one example of the many interactions I've had with this leader and of the many interactions I've had with many Chinese leaders and Chinese people in order to help you see them through my eyes and also to help you see the issues through their eyes.

To understand how Chinese people, especially Chinese leaders, think and what they value, it is as important to understand their history and the values and philosophies that have resulted from generations experiencing that history and reflecting on it. Their history and the philosophies that have come from them, most importantly their Confucian-Taoist-Legalist-Marxist philosophies, have a much bigger effect on how Chinese people, and especially

Chinese leaders, think than America's history and its Judeo-Christian-European philosophical roots have on Americans' thinking. That is because the Chinese, especially their leaders, pay so much attention to history to learn from it. For example, Mao, like most other Chinese leaders, was a voracious reader of history and philosophy, wrote poetry, and practiced calligraphy—e.g., I was told by an esteemed Chinese historian that Mao read *Comprehensive Mirror in Aid of Governance*, the mammoth 294-volume-long chronicle of China's history that covers around 16 dynasties and 1,400 years of Chinese history, from around 400 BC to 960 AD, and the even more mammoth *Twenty-Four Histories* several times as well as numerous other volumes about Chinese history and writings of non-Chinese philosophers, most importantly Marx. I'm told that his favorite book was *Zuo Tradition*, which focuses on political, diplomatic, and military affairs in a "relentlessly realistic style"[86] in the period from 722 BC to 468 BC, because the lessons it offered were so relevant to what he was encountering. He also wrote and spoke philosophically. If you haven't read anything he wrote and are interested in how he thought, I suggest you read "On Practice," "On Contradiction," and of course *The Little Red Book*, which is a compendium of his quotations on a number of subjects, which I only had time to skim but was impressed by. It is interesting and informative in ways that are relevant today.[87]

As a result of their longer history and their more intensive studying of it, the Chinese are much more interested in evolving well over much longer time frames than Americans, who are much more interested in making quick hits—i.e., the Chinese are more strategic than Americans, who are more tactical. The arc that Chinese leaders pay the most attention to is well over a hundred years long (because that's how long good dynasties last) and they understand that the typical arc of development has different multidecade phases in it, and they plan for them. For example, the first phase, which occurred under Mao, was when the revolution took place, control of the country was won, and power and institutions were solidified. The second phase of building wealth, power, and cohesiveness without threatening the leading world power (i.e., the United States) occurred under Deng and his successors up to Xi. The third phase of building on these accomplishments and moving China toward where it has set out to be on the 100th anniversary of the People's Republic of China (PRC) in 2049—which is to be "a modern socialist country that is prosperous, strong, democratic, culturally advanced, and harmonious," which would make the Chinese economy about twice the size of the US economy[88]—is occurring under Xi and his successors. Nearer-term goals and ways for getting toward these goals are set out in nearer-term plans like the Made in China 2025 plan,[89] Xi's new China Standards 2035 plan, and the usual five-year plans.[90]

Chinese leaders don't just plan and try to implement their plans; they set out clear metrics to judge their performance by and they achieve most of their goals. I'm not saying that this process is perfect because it isn't, and I'm not saying that they don't have political and other challenges that lead to disagreements, including some brutal fights over what should be done, because they have them (in private). In summary what I am saying is that they have much longer-term and historically based perspectives and planning horizons, they bring those down to shorter-terms plans and ways of operating, and they have done an excellent job of achieving what they set out to do by following this approach. By the way, I have coincidently discovered over many years that my studying history, looking for patterns, and dealing with tactical decisions has had a similar effect on how I see and do things—e.g., I now see the last 500 years as recent history, the most relevant arcs seem about 100+ years long, and the patterns I observe from taking this perspective are very helpful to my anticipating how events are likely to transpire and informing me about how I should be positioned over the coming weeks, months, and years.

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[86] John Wang, Tso-chuan, in *The Indiana Companion to Traditional Literature*, 805.

[87] I'd like to thank Kevin Rudd, former Prime Minister of Australia and current President of the Asia Society Policy Institute, for pointing me to these books and helping me understand Chinese politics.

[88] Because China has a population about four times the US population it only takes an income of half as much per capita to have twice as much in total. There is nothing that I can see that stands in the way of China and the US having comparable per capita incomes with time, which would make China four times the size.

[89] The Made in China 2025 plan is for China to be much more self-sufficient in most areas and to be world leaders in high-tech fields including artificial intelligence, robotics, semiconductors, pharmaceuticals, aerospace, and automotive.

[90] In October they will come up with their 14th five-year plan and targets for 2035.

China's Lessons and Its Ways of Operating

The Chinese culture developed as an extension of the experiences the Chinese had and the lessons they learned over the millennia. They were set out in philosophies about how things work and what ways work best in dealing with these realities. These philosophies made clear how people should be with each other, how political decision making should be done, and how the economic system should work. In the Western world the dominant philosophies are Judeo-Christian, democratic, and capitalist/socialist. Each person pretty much chooses from these to come up with the mix that suits them. In China, the main ones were Confucian, Taoist, and Legalist until the early 20th century when Marxism and capitalism entered the mix. The most desired mix to follow has historically been the emperor's most desired mix. Emperors typically study Chinese history to see how these have worked and come up with their own preferences, put them into practice, learn, and adapt. If the mix works, the dynasty survives and prospers (in their parlance it has the "Mandate of Heaven"). If it doesn't, it fails and is replaced by another dynasty. This process has gone on from before history was recorded and will go on as long as there are people who have to decide how to collectively do things.

While I can't do these philosophies justice in a couple of sentences each without digressing too deeply (though I will go into them more deeply in Part 2), here is the best I can do:

- **Confucianism seeks to bring about harmony by having people know their roles in the hierarchy and know how to play them well** starting from within the family (between the husband and the wife, the father and the son, the older sibling and the younger sibling, etc.) and extending up to the ruler and their subjects, with them bound together by benevolence and obedience. Each person respects and obeys those above them, who are both benevolent and impose standards of behavior on them. All people are expected to be kind, honest, and fair. Confucianism values harmony, broad-based education, and meritocracy.

- **Legalism favors conquest and unification of "all under heaven" as soon as possible by an autocratic leader.** It believes that the world is a "kill or be killed" jungle in which the strength of the emperor's central government and strict obedience to it must exist without much benevolence given to the people by the emperor/government. The Western equivalent is fascism.

- **Taoism teaches that the laws of nature and living in harmony with them are of paramount importance.** Taoists believe that all of nature is composed of opposites and that harmony comes from balancing them well—yin and yang. This plays an important role in how the Chinese seek the balance of opposites.

Of these, Confucianism and neo-Confucianism have been the most influential through time, usually with some Legalism thrown in, up until the early 20th century when Marxism gained favor with Mao and then with his successors. I will briefly explain Marxism when we get into the 20th century. Naturally all of these have been very fleshed out and have evolved over time, along with the ways that the emperor and government operate.

All of these Chinese systems from the beginning of recorded history were hierarchical and non-egalitarian. I was told by one of the most senior Chinese leaders, who is also a highly informed historian and an extremely practical top policy maker, that the core difference between Americans and the Chinese is that Americans put the individual above all else and the Chinese put the family and the collective above all else. He explained that Chinese leaders seek to run the country the way they think parents should run the family—from the top down, maintaining high standards of behavior, putting the collective interest ahead of any individual interest, with each person knowing their place and having filial respect for those in the hierarchy so that the system works in an orderly way. He explained that the word "country" consists of two characters, "state" and "family," which represents how the leaders view their roles in looking after their state/family—like strict parents. So one might say that **the Chinese government is run from the top down (like a family) and optimizes for the collective while the American approach is run from the bottom up (e.g., democracy) and optimizes for the individual.** (These differences of approach can lead to policies that those on the opposite side find objectionable, which I will explore in more detail in the next chapter.)

As far as how the governance structure works (i.e., who reports to whom in the hierarchy within the central government and how that extends down to interactions with regional and local governments), that has evolved over thousands of years and many dynasties into well-developed approaches that I won't get into because the digression would be too great. However what is clear is that there are well-established structures in which the emperor has ministers who are responsible for different domains that extend down to interacting with the provinces and municipalities via a large bureaucracy, and, at the same time, there have always been lots of fights to keep and get control of power by the emperors and the people who report to them. I was told by Zhiwu Chen, who is one of the most highly respected contemporary Chinese scholars, that 37% of emperors died unnaturally and that more often than not they were killed by the people around them or others in political struggles.[91] **Politics in China has traditionally been brutal.**

Geographically China is basically one giant plain surrounded by big natural borders (mountains and seas) with a giant population in that plain. For that reason most of China's world was within those borders and most wars were for control of it and were fought within those natural borders, mostly between the Chinese themselves, though sometimes between foreign invaders and the Chinese.

As far as wars and the philosophies about them are concerned, the goals have traditionally been to ideally win wars not by fighting but by quietly developing one's power so that it is greater than the opponent's so that one can then show it and have the opponent capitulate without fighting. There is also the extensive use of psychology to influence the opponents' behaviors to produce the desired results.[92] **Still there have been numerous violent wars inside of China over the dynasties, though there haven't been many outside of China. Those that were outside China were for the purpose of establishing China's relative power, security, and trade, not for occupation.** Scholars believe that China's lack of significant expansion of its empire outside of China is because the land mass of China is so large that controlling it has been more than enough to handle, because it is has largely been self-sufficient in resources, and because they have preferred to maintain their culture with a purity that is best achieved through isolation. Unlike other great empires that have conquered and occupied other countries, it was relatively uncommon for China to occupy distant states. **Traditionally the Chinese have preferred to enter into relations with empires outside their borders in a manner that is similar to what one might expect from the previously mentioned philosophies—i.e., with the parties knowing their places and acting accordingly and with their places determined by their relative powers.** For example, if China is more powerful, which was typically the case in its region, the less powerful states typically paid tribute to China with gifts and favors and in return typically received guarantees of peace, recognition of their authority, and trading opportunities. These subordinate countries typically maintained their customs and experienced no interference in how their countries were run.[93]

As far as Chinese money, credit, and the economy are concerned, the history is very long and complicated and went through the full range of money/credit/economic systems and cycles that were described in Chapter 2 and its appendix, so what happened in China is basically the same as what happened all around the world through

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[91] Similarly I read an article by Yuhua Wang that said that about half the emperors left office unnaturally, and "of these unnatural exits, about half were deposed by the elites (murdered, overthrown, forced to abdicate, or forced to commit suicide)…The next category is death or deposition in civil wars; very few (seven) were deposed by (or in) external wars." He presented a table showing the reasons emperors lost power. These stats make clear that in the past the "biggest threat was friends within." When I discussed the risks to the emperors and the people around them with a Chinese friend, he said that there is a famous Chinese saying about it, which is "to accompany the leader is to accompany a tiger."

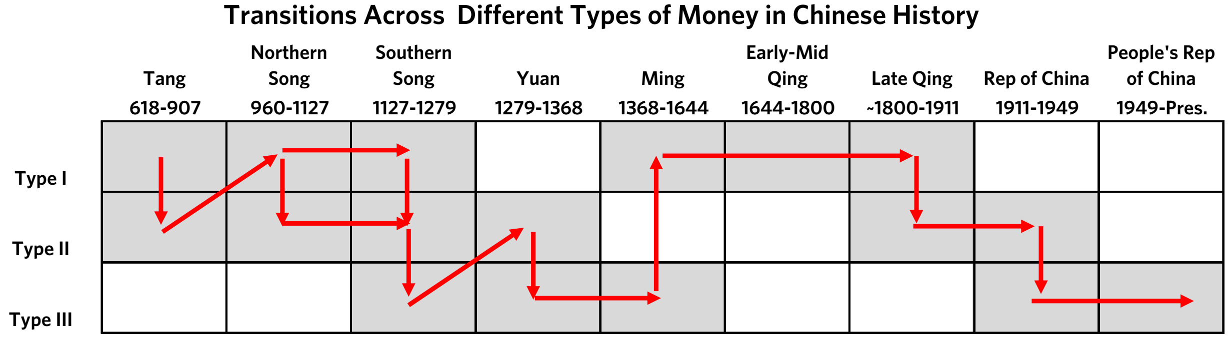
[92] If you haven't read *The Art of War* I suggest you read it to get a flavor for what I am referring to.

[93] The China historian John Fairbank, in his excellent book *The Chinese World Order*, described relations with non-Chinese states as follows: "The graded and concentric hierarchy of China's foreign relations included peoples and countries which we may group into three main zones: first, the Sinic Zone, consisting of the most nearby and culturally similar tributaries, Korea and Vietnam, parts of which had anciently been ruled within the Chinese empire, and also the consisting of the most nearby and culturally similar tributaries, Korea and Vietnam, the Ryukyu Islands, and, at brief times, Japan. Secondly, the Inner Asian Zone, consisting of tributary tribes and states of the nomadic or seminomadic peoples of Inner Asia, who were not only ethnically and culturally non-Chinese but were also outside or on the fringes of the Chinese cultural area, even though sometimes pressing upon the Great Wall frontier. Third, the Outer Zone, consisting of the 'outer barbarians' (wai-i) generally, at further distance over land or sea, including eventually Japan and other states of Southeast and South Asia and Europe that were supposed to send tribute when trading."

the millennia, though exactly when and exactly how is a bit different. More specifically, inside China like outside China there were the various types of monetary systems used and currencies issued by all sorts of entities with all the systems operating in the ways I described. Within China, the currency most used through the millennia was metal (mostly copper), and debt cycles like those described in Chapter 2 took place for the same reasons (i.e., debts created buying power so providing them made people feel richer and raised the economy and wealth and were allowed to grow to become much greater than the amount of money needed to service them and the amount of money grew much faster than the amount of goods and services that it could buy). In these big debt cycles there were stable periods when debt growth wasn't excessive, bubble periods when debt growth was excessive relative to levels that could be sustained, debt crisis periods when there wasn't enough money to service debt, and printing of money periods in which money was printed to alleviate the debt crises, which produced hyperinflations. Internationally (and sometimes domestically) silver was the main metal currency used, though gold was also sometimes used. As for the economy's changes, the system went from being primarily agricultural and feudal through many manufacturing incarnations such as the Bronze Age and the Iron Age, including various approaches to trading with foreigners/barbarians (most importantly through the Silk Road), which built a rich merchant class that produced cycles of big wealth gaps and the wealthy having their wealth taken away from them. Throughout China's history private entrepreneurial businesses were sometimes allowed, which typically also produced wealth and wealth disparities that led to redistributions of wealth and the businesses and other assets being taking over by the government. These also occurred in big cycles. For example, there were an untold number of changes in approaches created and destroyed for the building and the dividing of wealth. Consistent with China being an intelligent and industrious society, there were many technological inventions created that moved the economy forward. They occurred in the archetypical ways that were described in the earlier chapters. While most things were the same, there were some different monetary and economic tendencies in China. For example, there was a strong tradition of using copper coins, even after China invented paper money in the 9th century and up until the introduction of the yuan in the late 19th century.

The following charts convey some information about how Chinese money and credit passed through these cycles. As I explained in Chapter 2, "The Big Cycle of Money, Credit, Debt, and Economic Activity," there are three basic types of monetary systems in which 1) money has intrinsic value (like gold, silver, and copper coins), which I call a Type 1 monetary system, 2) money is linked to assets that have intrinsic value, which is paper money that can be exchanged for gold or silver at a fixed price (a Type 2 monetary system) and 3) money that is not linked to anything, which is called a fiat monetary system (a Type 3 monetary system). As explained, these have historically changed from one to another as the weaknesses of each become intolerable. The diagram below conveys an ultra-simplified picture of how these currency systems have rotated through China's history since the Tang Dynasty.[94] In fact it was much more complicated than this as different parts of China often had different currencies and at times coins and ingots from other countries (e.g., Spanish silver dollars in the late 16th century) that changed more frequently than what is conveyed in the chart. Still the chart is broadly indicative and meant to show that they had the full range of monetary systems that worked essentially the same as elsewhere in the world, most importantly with the cycles of hard money leading to debt problems leading to the abandonment of hard money leading to high or hyperinflations leading to the return to hard money.

Transitions Across Different Types of Money in Chinese History

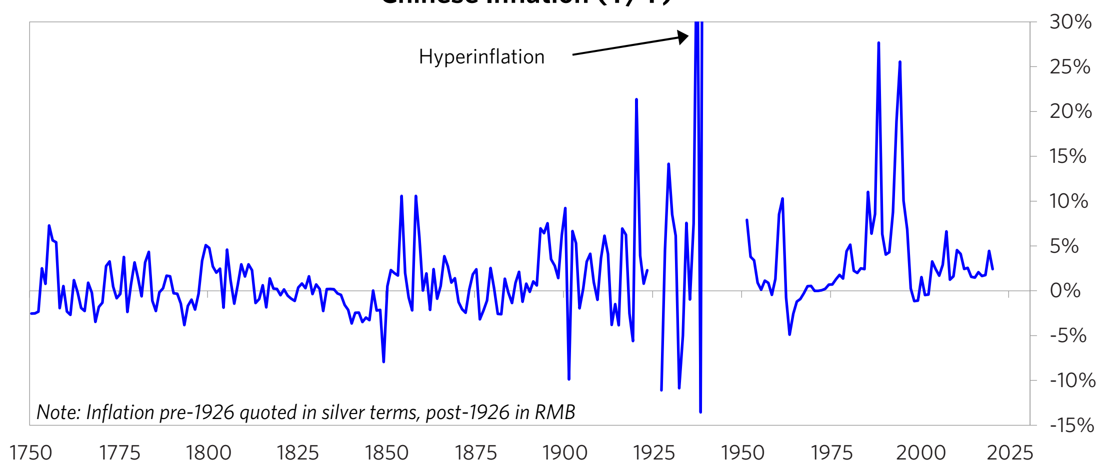


[94] I produced the diagram to apply this template to Chinese monetary history through working with Professor Jiaming Zhu.

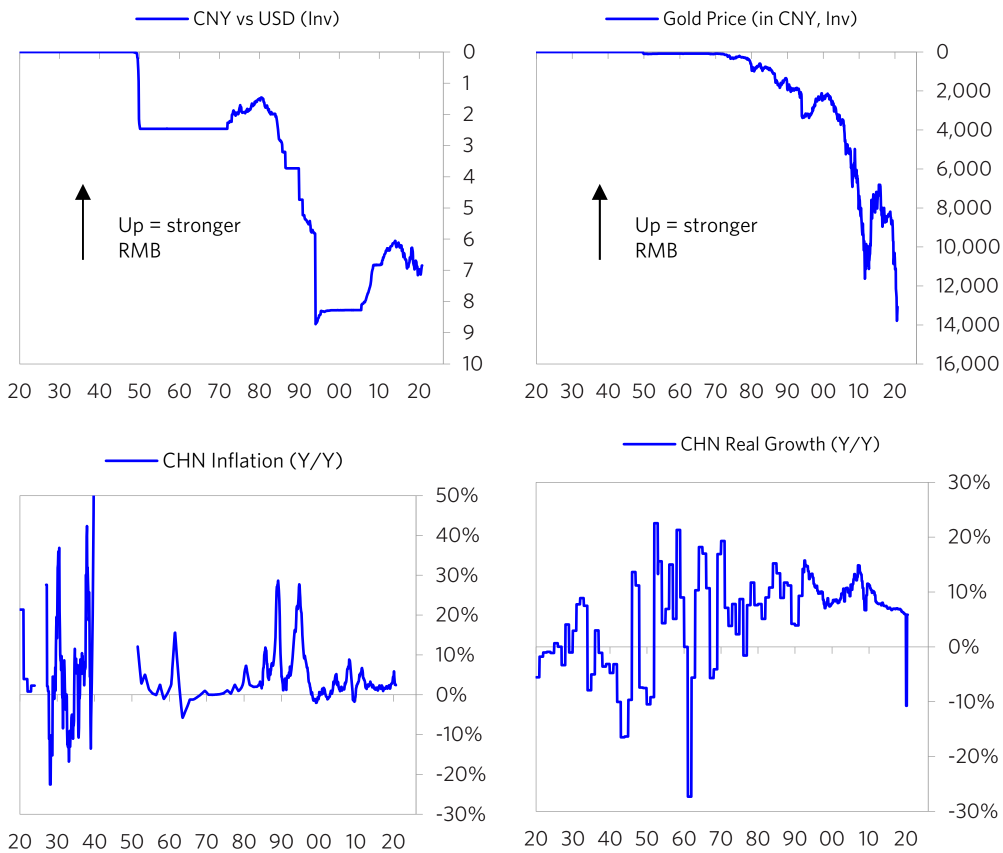
The chart below shows inflation rates going back to 1750, which reflects the changing value of money. The periods of relatively stable inflation early on were largely the result of China using metals (silver and copper) as money. Instead of a central currency being printed, raw weights of metals were exchanged as money (i.e., there was a Type 1 monetary system). When the Qing Dynasty broke down, provinces declared independence and issued their own currencies through their silver and copper and valued by their weights (i.e., the Type 1 monetary system was retained), which held their value which is why, even during this terrible period, there was not an exceptionally high level of inflation measured in this money. However debt (i.e., promises to deliver this money) grew in the 1920s and 1930s, which led to the classic debt cycle in which the promises to deliver money far exceeded the capacities to come up with the monies to deliver so there was a default problem, which led to the classic abandonment of the metal standard and the outlawing of metal coins and private ownership of silver. As previously explained, ***currencies are used for 1) domestic transactions, which the government has a monopoly in controlling and can get away with them being fiat and flimflam, and 2) international transactions, in which case the currencies must be of real value or they won't be accepted. As a rule, the better money is that which is used for international transactions. The test of the real value of a domestic currency is whether or not it is actively used and traded internationally at the same exchange internationally as domestically. When there are capital controls that prevent the free exchange of one's domestic currency internationally that currency is more susceptible to being devalued, which is also why one of the standards for being a reserve currency is that there are no capital controls on it. So, <u>as a principle, when you see capital controls being put on a currency, especially when there is a big domestic debt problem, run out of that currency</u>.***

In China in the mid-1930s two currencies existed—one that was fiat paper that was used domestically and one that was gold and silver that was used for international payments. The fiat paper one that was used domestically was printed abundantly and devalued a lot, even as the government issuing it controlled less and less territory as it lost the civil war, which is why we see the hyperinflation shown in the chart during that period. Remember, as a principle, ***get out of fiat currencies during debt crises and wars because they will be printed a lot to fund debt payments, which will lead them to be devalued and to high or hyperinflation***. As shown in the chart below, after the turbulence of World War II and the civil war, in December 1948, the first RMB was issued as a fiat currency that was kept in limited supply to end the hyperinflation. In 1955 a second issuance of RMB was made, and in 1962 a third was issued. From 1955 to 1971 the exchange rate was fixed at 2.46 to the US dollar. From 1972 through the late 1970s, China did a better job of restraining money and credit. You can see another round of high inflation from the late 1970s to the early '90s. It was caused by the global devaluation of money against gold in 1971, global inflationary pressures, China phasing out its price controls, easy credit, and lack of spending controls among state-owned enterprises. In 1996 convertibility was allowed for current account items but not for the capital account. From 1997 until 2005 the exchange rate to the dollar was kept at 8.3. In 2005 the peg with the dollar was ended.

Chinese Inflation (Y/Y)



The charts below show the value of Chinese currency in dollar terms and in gold terms since 1920, plus the inflation and growth rates over this period. The history for the currency rates is so fragmented before that that it is not worth referencing. As you can see, there were two devaluations, one at the setting up of the new exchange rate in 1948, and a series of devaluations from 1980 until the early 1990s, largely aimed at supporting exporters and managing current account deficits,[95] which led to the very high inflation during that period. As shown, growth was relatively fast and erratic until around 1978, then fast and much less erratic since 1978 until the recent brief plunge due to COVID-19.



Generally speaking the very long and volatile history of markets and economies has given the Chinese, and especially Chinese economic policy makers, the same sort of deep and timeless perspectives about money, debt, and economies as they have for other history. However, that is not totally true. While it has given most Chinese a strong desire to save and an appropriate sense of risk that innately drives them to save in safe liquid assets (e.g., cash deposits) and tangible assets (e.g., real estate and some gold), most Chinese investors have limited experiences in some riskier assets such as equities and risky debt, so they can be naïve in these areas, though they are learning very fast. When it comes to policy makers understanding how money, credit, monetary policy, fiscal policy, and the economy work, and how to restructure bad debts, I have found China to have great perspective and to be world-class.

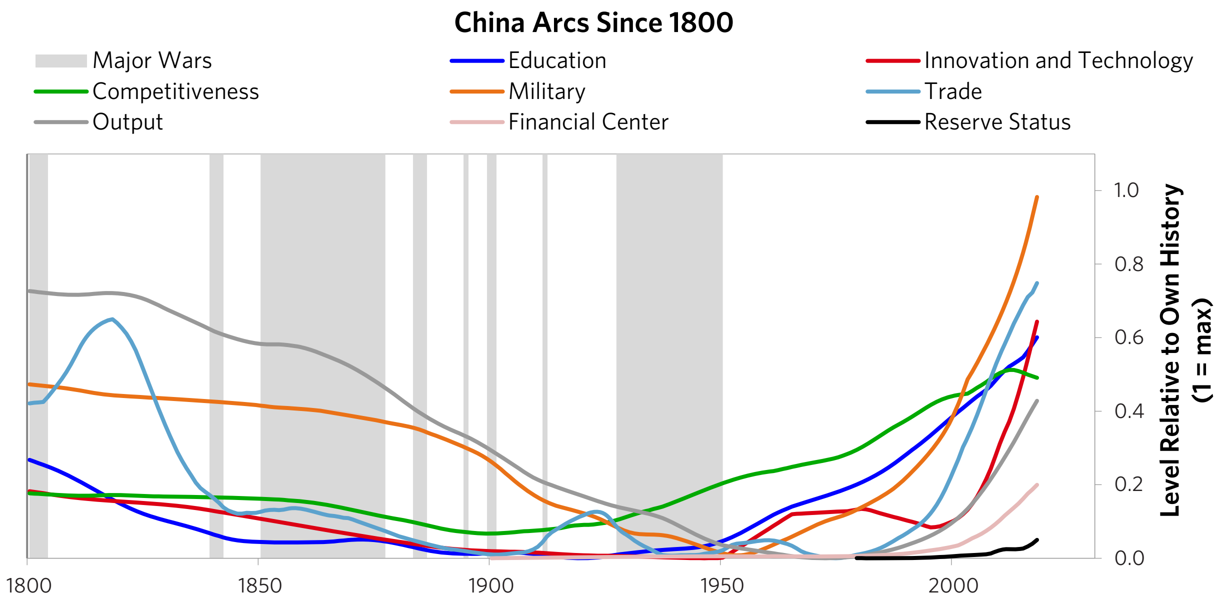
Now let's look a bit more closely at China's history from 1800 until now.

[95] For instance, the devaluations in 1985-86 and 1993 came after a period of opening up trade and an expansion in Special Economic Zones. These openings created immense demand for foreign FX and imports to build production capacity—but it would still be a couple more years until those SEZs yielded much higher exports. That mismatch contributed to growing current account deficits.

From 1800 until Now

To bring you up to date to where we are now, I want to superficially look at the post-1800 period until the beginning of the People's Republic of China in 1949, then look at the Mao period until 1976 a bit more closely, then look at the period of Deng Xiaoping (from 1978 to 1997) and his successors up to Xi Jinping (in 2012) more carefully, and then look at the period of Xi Jinping up until now. Then we will look at US-China relations more closely. We will do all that in about 20 pages.

To begin, I will draw your attention to the eight measures of power that I showed you before for other countries and for China since 1800. It is shown in the chart below. Notably, unlike the cycles for the Dutch, the British, and the American empires that we looked at before, which went from their rises through or into their declines, the cycle that we are examining for China goes from its decline at first into rising most recently. While in a different order, as you will see, the same forces were behind China's decline and rise as were behind the other empires declines and rises.



As conveyed, the low point in these eight measures of power—i.e., education, innovation and technology, competitiveness, military, trade, output, financial center, and reserve currency status—was in the 1940-50 period. Since then most powers—most notably economic competitiveness, education, and military—improved gradually[96] until around 1980 when China's economic competitiveness and trade took off. Since then until around 2008 growth was very strong with debt growth being in line with economic growth. Then the 2008 financial crisis came along and China, like the rest of the world, used a lot of debt growth to stimulate its economy so debts rose relative to incomes, Xi Jinping came to power, improved China's debt management, continued innovation and technology, more boldly expanded globally, and encountered greater conflict with the US. As shown in this chart China is now a leading power in trade, military, and innovation and technology, and its relative powers in these areas are increasing quickly. While China is still highly competitive economically in world markets, its rate of improvement in this area is slowing. At the same time China remains a lagging power in its reserve currency and its financial center.

While these indices are broadly indicative, they aren't precise because each of these powers can't be precisely measured. For example, as far as the power of its education system is concerned, while our index rises at a fairly brisk pace it fails to fully capture the relative improvements in China because this measure is made up of average

[96] China began its nuclear-weapon research in the early 1950s and acquired nuclear-weapon capability in 1964.

levels of education as well as total levels of education. This is best conveyed in the table below, which shows some of the most important stats in this index. As shown, while the average education level in China is considerably below the average education level in the US, the total number of highly educated people is significantly higher in China than the United States. For example, the total number of college graduates in science, technology, engineering, and math is about three times that in the United States (see table below). At the same time there are reasons to believe that the average quality level of education isn't as high, especially at the college level. For example, there is only one Chinese university—Tsinghua University, which is No. 36—that appears in the top 50 universities in the world, while 29 American universities do.[97] This picture in which the average of something in China is below the average of the same thing in the United States but the total in China is greater than the total in the US is because the average level of development in China is less while the Chinese population is over four times as large as the American population. That comes across in a number of stats. For example, while the United States is militarily stronger in total all over the world, the Chinese appear to be militarily stronger in the East and South China Seas area, and there is a lot that is unknown about both countries' military powers because they are kept secret. For this reason and for other reasons these measures of power are broadly indicative rather than precise.

	USA				CHN			
	1980	**Today**	**Change**	**Change (%)**	**1980**	**Today**	**Change**	**Change (%)**
Average Years of Basic Schooling	11.9	13.6	+1.7	+14%	4.6	7.9	+3.3	+72%
Govt Spending on Education (% of GDP)	5.30%	5.50%	0.20%	+4%	1.90%	5.20%	3.30%	+174%
Est Population w/Tertiary Education (mln)	25	60	+35	+140%	3	120	+117	+3900%
Population w/Tertiary education (% Working Age Pop.)	17%	28%	11%	+68%	1%	12%	11%	+2272%
Population w/Tertiary education (% World)	35%	15%	-20%	-57%	4%	31%	+27%	+590%
STEM Majors (mln)	3	8	+5	+141%	1	21	+21	+4120%
STEM Majors (% World)	29%	11%	-18%	-62%	5%	31%	+26%	+535%

The Decline from 1800 until 1949

In brief, the post-1800 decline happened when a) the last Chinese royal dynasty (the Qing Dynasty) became decadent and weak at the same time that b) the British and some other Western capitalist countries became strong, which led the British capitalist-colonialists and a number of other foreign capitalist-colonialists to increasingly take control of China economically, at the same time that c) the financial and monetary system broke down under the burdens of debts that couldn't be paid and the printing of money that caused the collapse in the value of money and debt, at the same time that d) there were massive domestic rebellions and civil wars.[98] That severe Big Cycle decline in which all the major strengths were in mutually reinforcing declines continued from around 1840 until 1949. The end of World War II in 1945 led to the repatriation of most foreigners in China (except for Hong Kong and Taiwan) and a civil war to determine how the wealth and power would be divided—i.e., a war between the communists or the capitalists—on the Chinese mainland. This over 100-year-long period of decline, which the Chinese call the "Century of Humiliation," was a classic case of the archetypical Big Cycle decline occurring due to a number of the classic weaknesses existing, leading to mutually and self-reinforcing declines adding up to the big decline. It was followed by the classic case of a Big Cycle upswing in which the new leader wins control, consolidates power, and begins building the basic structures that are passed onto subsequent generations, who build on their predecessors' accomplishments.

More specifically, in the 1800s, the British East India Company and other merchants wanted tea, silk, and porcelain from China because it was extremely lucrative to sell back home. However, the British didn't have anything that the Chinese wanted to trade for so they had to pay for these goods in silver, which was a global money at the time. The British paid out of their savings but were running out of this money, which led the British to smuggle opium into China from India which they sold for silver which was used to pay for the Chinese goods. The Chinese fought to stop these sales, which led to the First Opium War in which the technologically superior British Navy defeated the Chinese in 1839-42 and led the British to impose a treaty on the Chinese that gave the British and other powers

[97] From *US News & World Report*: https://www.usnews.com/education/best-global-universities/rankings
[98] The massive Taiping Rebellion, one of the bloodiest wars in human history, which led to an estimated 20 to 30 million killed, along with other internal and external conflicts, caused giant fiscal crises that led to an issuance of debt.

control of China's main ports (most notably Shanghai, Canton, and Hong Kong) and eventually led to the loss of large parts of northern China to Russia and Japan and the loss of what we now call Taiwan to Japan. The Qing government borrowed from foreigners to fight internal rebellions and owed huge reparations from these wars. Reparations, especially out of the Boxer Rebellion (a Chinese rebellion against foreigners in 1901) created a huge liability—17,000 tons of silver equivalent—which was structured as around a 40-year debt. The foreign powers were able to use tariff income on the ports they effectively controlled as a guarantee of the debt. The Qing government, starved of financial resources, faced many uprisings over the couple decades following the Opium Wars and spent down their saving to finance fighting them. That combination of 1) not having strong leadership, 2) not having sound finances, 3) having internal rebellions that undermined productivity and were costly in money and lives, 4) fighting foreigners, which was costly financially and in lives, and 5) experiencing some big disruptive acts of nature produced the mutually and self-reinforcing decline known as the "Century of Humiliation."

It is easy to see how that period had an important role in shaping Chinese leaders' perspectives—e.g., why **Mao saw capitalism as a system in which companies pursued profits through imperialism (i.e., through the controlling and exploiting of countries, the way the British and other capitalist powers did to China) in a way that enriched greedy rich people while exploiting workers. After all this is what happened to China over the prior 100 years, and the world in the 1930-45 period was in one of the most extreme wars between the "rich capitalists" and the "working class communists." It was interesting to me to see how Mao's view of capitalism differed from my view of capitalism because his experience with it was so different from mine, though both of our views about it were true. Because capitalism provided me and most others I knew, including immigrants from all over the world, with enormous opportunity, America was both fair and a land of opportunity in which one could learn, contribute, and be rewarded without boundaries. I was from a working-class background and always admired and appreciated the hard-working people who worked together to be productive and the motivated entrepreneurs innovating and working with devoted workers to convert their dreams into realities that the whole society benefited from. This experience of my trying to see something (capitalism) through both my eyes and through Mao's eyes was another reminder for me of how important radical open-mindedness and thoughtful disagreement are in order to find out what is true. That desire led me to study Marxism a bit so that I could imagine how it made a lot of sense to Mao and others as a philosophy. My inclination up until then was to think of it as at its best obviously impractical and at its worse possibly an evil threat, yet I was ignorant about what Marx actually said.**

Enter Marxism-Leninism

My desire to see Marxism-Leninism through Mao's and other Chinese leaders' eyes, and my realization that as a capitalist interested in economics I needed to understand it better, led me to study it more carefully, which altered my perspective of it. As mentioned, before I examined it, I assumed Marxism was a dysfunctional resource allocation system in which resources were theoretically distributed "from each according to their abilities, to each according to their needs" but failed to produce much because of a lack of incentives to be inventive and efficient. I didn't really understand what dialectical materialism was, and I didn't realize that Marx was a brilliant man whose thoughts were worth better understanding. It was the process of needing to understand what Mao and those who succeeded him, especially Xi now, found appealing in this philosophy that led me to dig more into Marx's writings.

Marx's most important theory/system is about how evolution takes place. It's called dialectical materialism. "Dialectical" refers to how opposites go together to produce change, and "materialism" means that everything has a material (i.e., physical) existence that interacts with other things in a mechanical way. Marx had disdain for theories that were not connected to reality and that didn't produce good change. So I wondered how Marx, a very practical man who believed that philosophies could only be judged in the successes and failures they produced, would have diagnosed communism's near-total and universal failures and changed his thinking and modified how communism worked using his dialectical materialism approach to do that.

In a nutshell dialectical materialism, Marx's system for producing change, is a systematic way of observing events transpire and influencing them by watching and influencing "contradictions" of "opposites" that produce "struggles" that, when resolved, produce progress. Marx meant it to apply to everything. The conflict and

struggle between the classes that is manifest in the conflict between capitalism and communism is just one of many such conflicts.

Thus far that sounds right to me—i.e., that 1) contradictions/opposites produce struggles and that having these conflicts and reflecting on them and trying to struggle through them well is a process for making progress, and 2) there is a struggle between "classes" that is manifest in the conflict between capitalism and communism. As you will recall, I believe that conflicts produce struggles and that having conflicts and struggling through them produces progress and I consider the conflicts between the classes (i.e., the "haves" and the "have nots") to be one of the three most important forces in driving history. You will recall that from studying history I have come to believe that the three most powerful forces that have been behind the rises and declines of empires are 1) the money/debt/capital market cycle, 2) the internal wealth/opportunity/political gap cycle, and 3) the external power(s) challenging the existing power(s) cycle, which is somewhat similar, though I believe there are about 17 important factors in total. In any case, I don't think that these two main points about dialectical materialism by Marx are wrong.

Whether in his words or mine, in the 1930-45 period these forces were in the decline/conflict phases of their cycles, which led to revolutions and wars around the world that brought the two big ideological approaches—capitalism and communism—into conflict which shaped the landscape of the 20th century. These forces that Marx was referring to were the big things that affected China throughout Mao's lifetime. As always happens, these forces of decline ran their courses and new domestic and world orders began. More specifically, the external war ended in 1945, which then led to the new world order being created and foreign forces leaving most of mainland China. Then China had its internal war, which was between the communists and the capitalists that ended in 1949 and led to a new domestic order, which was communism under Mao. Put yourself in Mao's position during the 1900-49 period, and imagine him reading what Marx wrote and think about his actions during that period and in the post-1949 period. It makes sense why Mao was a Marxist and pursued his version of Marxist policies and held the established Confucian approach to harmony in disdain.

As far as ideological inclinations for Chinese people and Chinese leaders more generally, Confucianism, Marxism, and some strict Legalism were all are part of the mix. Note that all of these emphasize the importance of knowing one's role and place in the hierarchy and playing that role in the designated way, so being that way is deeply rooted. Democracy as we know it doesn't have any roots in China. Capitalism on the other hand existed in China (as did revolts against it) and is currently growing, though it grows like a productive beast that is kept under the government's control.

I will start by very briefly summarizing what happened between 1949 and now, and then delve into each of the different phases that took China from then to now.[99]

[99] Though I'm no expert on Marxism the dialectical materialism process sounds similar to the process that I discovered works well for me by struggling with conflicts, reflecting on them, writing down the principles, and improving—and doing that over and over again in a never-ending evolutionary "looping" way. Also, for reasons previously explained, it is my opinion that capitalism—an incentive system that rewards people who are the most inventive and productive and that has capital markets that allocate resources in ways in which people are rewarded for good capital allocation decisions and penalized for bad ones—will lead to a) more productivity over the long run (hence a bigger total pie), b) big wealth differences, and c) capital markets (especially debt markets) that become overextended and then break down and, when there is a capital market/economic breakdown at the same time, there are big wealth and values differences, which will lead to some form of revolution (i.e., there can be harmonious productive ones, though most have great conflict and are destructive before they are productive). So, thus far the way Marx appeared to see things and the way I see things isn't radically different, though what we would choose and what we would think should be done is probably radically different. If you asked me a) whether I'd rather have what capitalism has delivered or what communism had delivered, and b) if I think the capitalist path we have seen is more logical than the communist path we have seen, I'd say yes to both questions. On the other hand if you asked me a) if both the capitalist and the communist systems need to be reformed to make the pie grow better and to have it distributed better, and b) if Marx's dialectical materialism approach to evolving and my 5-Step Process to evolving are broadly similar and the best ways of evolving well, I would also say yes to both questions (without getting hung up on how exactly these two approaches are different). In other words I believe, and it sounds like Marx believed, that evolving from conflicts, mistakes, and the learning from having these is the best approach. Also, as far as the wealth gap goes, we both see that it has been a big issue throughout history that can threaten all systems. Lenin built on what Marx said to create a two-step process of building the state in which there is at first dictatorship by workers through "democratic centralism" in which there is a voting process of members of the party which would eventually lead to a higher communist state in which greater prosperity would exist, which is the second stage. Mao liked the Marxist-Leninist approach in which the

The Rise from 1949 until Now

Though a bit of an oversimplification, we can think of China's evolution from 1949 until now as occurring in three phases from 1) the Mao phase from 1949 until 1976 to 2) the Deng and Deng's successors phase from 1978 until 2013 when Xi Jinping came to power, which led to 3) the Xi Jinping phase from 2013 until now. Each phase moved China along the long-term development arc so that accomplishments were made in each phase that the subsequent phases built upon. In brief these phases transpired along this arc as follows:

- **From 1949 until 1976 Mao (with his various ministers, most importantly Zhou Enlai) a) consolidated power, b) built China's foundation of institutions, governance, and infrastructure, and c) ruled China as a communist emperor until he died in 1976. During that period, he ruled China for the workers and against the capitalists, he kept China in isolation from the rest of the world, and he followed a strict communist system in which there was government ownership and tight government bureaucratic controls over everything. Immediately following the deaths of Mao and Zhou Enlai, there was a power struggle in 1976-78 between the hardliners (i.e., the Gang of Four) and the reformists that Deng Xiaoping won, which led to the second phase.**

- **Deng (with his various ministers) ran China directly or indirectly until his death in 1997. During that phase China moved to a more collective leadership model, opened up to the outside world, introduced and developed capitalist practices, and became much stronger financially and more powerful in other ways that didn't appear threatening to the United States and to other countries. During most of Deng's tenure the primary enemy of China was Russia, so he viewed building a symbiotic relationship with the United States as helpful geopolitically. Economically the relationship was symbiotic because the US bought items that were attractively priced from China and the Chinese lent back to the Americans a lot of the money they earned to make those purchases. As a result, the US acquired US-dollar-denominated debt liabilities to the Chinese, and the Chinese acquired dollar-denominated assets owed to them by the Americans. After Deng's death his successors Jiang Zemin and Hu Jintao (and those who led China with them) continued in the same directions so China continued to quietly become richer and more powerful in fundamentally sound ways that did not appear threatening to the US. In 2008 the global financial crisis led to greater tensions over wealth in the United States and other developed countries, increased resentment at job losses that were going to China, and increased debt-financed growth in all countries including China. That, and the development of China that began to appear more threatening, started to change the relationship.**

- **Xi Jinping came to power in 2013 presiding over a richer, more powerful China that was becoming overly indebted itself (though its debt was internal debt) and increasingly at odds with the United States. Xi accelerated economic reforms, took on the challenge of trying to contain debt growth while aggressively reforming the economy, and supported the building of leading technologies and going global. He also became more proactive in reducing the gaps in educational and financial conditions and in protecting the environment and consolidating political control. As China's powers grew and Xi's bold objectives (e.g., the Belt and Road Initiative and the Made in China 2025 plan)**

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party represents the working people who rule over a socialist state that will achieve higher levels of development and eventually achieve communism in which there is common ownership of the means of production and social and economic equality. In other words they believe that achieving the ideal of communism of "the distribution of wealth from each according to their abilities to each according their needs" comes at the end of a very long evolutionary process. Deng Xiaoping reiterated this view that communism and the capitalism he was employing were not at odds in an interview with an American TV journalist when he said, "According to Marxism, communist society is based on material abundance…Only when there is material abundance can the principle of a communist society—that is, 'from each according to his ability to each according to his needs'—be applied. Socialism is the first stage of communism…We permit some people and some regions to become prosperous first for the purpose of achieving common prosperity faster…The first stage of socialism takes a long time…Despite the rich/poor divide, wealth in China is more evenly distributed than in any time in history…The CPC can see the gap widening and is taking action…" Maybe that's true and maybe it's not. Time will tell. To me thus far capitalism—in China or anywhere else—is winning the competition. However, nobody can argue that the Chinese mix of communism and capitalism has not produced remarkable economic results over the last 40 years.

became more apparent, especially after Donald Trump (a populist/nationalist who was elected largely by appealing to those who were suffering from the loss of jobs) was elected president, US conflicts with China rose in a way that was analogous to the rise of Japan and Germany to challenge the then-existing powers in the 1930s.

Let's look at these a bit more closely.

Phase 1, 1949 to 1976: The Mao Phase of Building the Foundation

Mao and the communists won the civil war and started the People's Republic of China in 1949 and quickly consolidated power. **In 1949 Mao was a philosopher-revolutionary who was leading a class war of workers against the capitalists, had won the revolution, and was in the position of being the de facto emperor of China (titled "president and chairman of the Central Military Commission") and Zhou Enlai became his prime minister (titled "premier") in pursuit of the overarching mission of ruling the country on behalf of the proletariat.** To do that he turned to Marxism-Leninism and away from Confucianism. He also dealt with the practical aspects of building a government to take care of basic services. The new government quickly repaired transportation and communications and nationalized the banking system, which it put under the new central bank, the People's Bank of China. Needing to bring down inflation the new central bank tightened credit and stabilized the value of the currency. The government nationalized most businesses and redistributed agricultural land from large landowners to those who farmed the land. It also created "public institutions" for "education, science, technology, and public hygiene." No matter whether one worked or not, one got a basic pay. There was no merit-based pay. The protections that these guaranteed basic incomes and benefits provided everyone were collectively called "the iron rice bowl." These changes created a stable economy but little motivation beyond the commitment to the mission of motivating workers. But Mao was on his way to achieving his first goal of having China's mainland free of foreigners, shifting wealth and power to the proletariat led by him, and establishing basic institutions to govern. In other words, he focused primarily on building a new internal order.

While China under Mao was isolationist, it wasn't long before the new government found itself in a war. As explained in the last chapter, in 1945 the new world order divided the world into two main ideological camps—the democratic capitalists led by the United States and the autocratic communists led by the Soviet Union—with a third group of countries not aligned to either side. Many of these nonaligned countries were still colonized, most notably by the declining British Empire. China was clearly in the Soviet-led autocratic communist camp, following a Marxist-Leninist approach with a bit of strict Legalism in the mix and opposing Confucianism. In 1950, soon after Mao won the revolution and began the PRC in 1949, he and the Soviets signed the Treaty of Friendship, Alliance, and Mutual Assistance to cooperate and come to each other's aid militarily.

As mentioned in Chapter 4, at the end of World War II Korea was split, with the Russians having control of the north and the Americans having control of the south, divided at the 38th parallel. In June 1950, guided by Stalin/the Russians, the North Koreans invaded the South. Initially the Chinese weren't involved in the fighting as they were preoccupied by their own challenges and didn't want to be drawn into a war. The United States, in conjunction with the United Nations, responded to the invasion by bringing its forces into the fighting and then taking the fighting into North Korea, which is on the Chinese border. The Chinese viewed this as a threat especially since the American General Douglas MacArthur made clear that he would attack China. China couldn't have the United States on its border or in its territory, so China had to fight. China, like most countries, was very sensitive about having enemies on its borders. Though the Soviets and the Chinese had a pact to support each other, Stalin didn't want to go war with the United States and so he didn't provide China with the military support it expected. Though the Chinese were ill-prepared for a war against the much greater American power, which had nuclear weapons that China didn't have, the Chinese entered the war and pushed the US and UN troops back to the previously established border. This was the first great challenge to Mao and China and was considered a great victory by the Chinese. Given China's history with foreigners Mao/China understandably wanted extreme isolation within its sovereign border and was able to achieve that.

Economically from Mao's founding of the PRC in 1949 until Mao's death in 1976, the Chinese economy grew at a rather good average annual rate of about 6%, with an average annual inflation rate of just around 1-2%, and the Chinese acquired around $4 billion in foreign exchange reserves, so it improved moderately but remained poor. This happened with a lot of volatility. More specifically:

- Between 1949 and 1952 the new government consolidated power and eliminated opposition. This included wiping out the elites such as the landlord owners of agricultural lands, which included killing many of them. Deng Xiaoping led that move in the southwest and was praised by Mao for doing it well.
- Through most of the 1950s to consolidate power Mao undertook programs to identify capitalists (called "anti-rightist" campaigns) and either disable, imprison, or kill them.
- Between 1952 and 1957, with the help of the Soviets, industrial production grew at 19% per year, national income grew at 9% per year, and agricultural production grew by 4% per year. The Chinese government built industrial facilities and imported lots of equipment from the Soviets. It also reformed agriculture by creating cooperatives to achieve economies of scale by having farmers work together. These were highly productive years. However during this period, after Stalin's death in 1953, Nikita Khrushchev came to power, criticized Stalin and his policies, and alienated Mao, which led to these Chinese and Soviet leaders openly criticizing each other, which began a period of reduced Soviet support.
- Around 1960 the Soviet Union shifted from an ally to an enemy and withdrew economic supports.
- From 1958 through 1962, due to a drought, economic mismanagement from the top-down mandated attempt to become an industrial power called the Great Leap Forward, and reduced Soviet economic support, the economy contracted by 25% and an estimated 16-40 million people died of famine. Industrial output fell by 34% and fell by 12% more in 1962.[100] All parties agree that it was a terrible period, though there is some disagreement about how much it was terrible because of terrible management by Mao versus terrible because of the other causes.
- The economy recovered and went to new highs from 1963 to 1966. Then came the Cultural Revolution.

As is classic in all cycles, internal political challenges to Mao's leadership and ideology arose. These internal political battles had traditionally been extremely brutal and risky for the supreme leader. As mentioned earlier, I was told by an esteemed Chinese scholar that 37% of Chinese emperors died in office from unnatural causes and about half of these were because of people close to the emperor.

In 1964 Khrushchev was overthrown by a coup in Russia, and political and ideological struggles were on Mao's mind (and everyone else's). Mao's Legalist and Marxist inclinations made him a brutal fighter for power and for the proletariat, so to deal with this threat to his power Mao fostered a political revolution to "purify class ranks" called the Cultural Revolution. It was to purge political and ideological opponents and to reinforce "Mao Zedong Thought." It went from 1966 until 1976, though was most violent roughly between 1966 and 1969. Mao won the political/ideological battle, purging his rival Lin Biao who was accused of a botched coup against Mao; he died in a plane crash and "Mao Zedong Thought" was written into the constitution. The Cultural Revolution curtailed education and cost or damaged millions of lives.[101] These conditions further undermined education and slowed advances in the Chinese economy, especially in the late 1960s. By the early 1970s the situation began to stabilize under the operational leadership of Premier Zhou Enlai, and the economy grew at around 6% per year. In 1969 there was a border war between China and the Soviet Union, which wiped out a Chinese battalion. During this period there was also a political struggle between "the Gang of Four" hard-core Maoists and moderates who favored reforms (most importantly Zhou Enlai and Deng Xiaoping).

1971 was a year of great change in China. In 1971 the Cultural Revolution was producing great turmoil and Mao's health continued to decline. That contributed to Zhou Enlai playing an increasing leadership role from the

[100] https://www.jstor.org/stable/652030?seq=2#metadata_info_tab_contents
[101] Estimates of the death toll of the Cultural Revolution range from hundreds of thousands to 20 million.

background, which led to him, in 1973, being elected a "vice chairman of the Communist Party," putting him in the position of appearing to be Mao's successor. Also **in 1971 China was threatened by the Soviet Union, which was militarily much more powerful and shared a 2,500-mile border with China, leading to increasing border threats. In 1975, after the US withdrew from Vietnam, which shares a 900-mile border with southern China, Russia built an alliance with Vietnam and moved in troops and arms. Mao had a geopolitical principle *to identify the main enemy, neutralize the enemies' allies, and draw them away from the enemy*. Mao identified the Soviet Union as China's main enemy and recognized that the Soviets were in a war with the United States that hadn't yet turned hot but could. That led him to make the strategic move of approaching the US. Henry Kissinger quoted Chinese officials as saying, "The last thing the US imperialists are willing to see is a victory by Soviet revisionists in a Sino-Soviet war, as this would [allow the Soviets] to build up a big empire more powerful than the American empire in resources and manpower."[102]**

I also know that Zhou Enlai, a reformist, had wanted to build a strategic relationship with the United States for decades because a close Chinese friend of mine, Ji Chaozhu, who was Zhou Enlai's interpreter for 17 years and interpreted in the first Kissinger-Zhou Enlai talks, told me that that was the case.[103] China wanted to open a relationship with the United States to neutralize the Russian threat and in the hope that would enhance its geopolitical and economic position. Because in 1971 it was especially clear that it was in the interests of both China and the United States to build a relationship, they both made overtures to establish relations. In July 1971 Henry Kissinger and then in February 1972 Richard Nixon went to China to open relations, and in October 1971 the United Nations recognized the Mao-led communist Chinese government and gave China a seat on the Security Council. During Nixon's February 1972 visit, Nixon and Zhou Enlai signed an agreement (the Shanghai Communique), in which the US stated that it "acknowledges that all Chinese on either side of the Taiwan Strait maintain that there is but one China and that Taiwan is part of China. The United States government does not challenge that position. It reaffirms its interest in a peaceful settlement of the Taiwan question by the Chinese themselves. With this perspective in mind, it affirms the ultimate objective of the withdrawal of all US forces and military installations from Taiwan. In the meantime, it will progressively reduce its forces and military installations on Taiwan as the tension in the area diminishes." **In US-China relations, the reunification with Taiwan stands out as the most consistently contentious issues** with the promise of reunification often offered and then pulled back from the Chinese.

After these 1971-72 moves of rapprochement and appeasement, US relations with China and trade and other exchanges began.

1976 was momentous because that was the year Zhou Enlai died (in January 1976), Mao Zedong died (in September 1976), and China faced its first generational change.

From 1976 to 1978 there was a fight for power between the Gang of Four (hardline conservatives who fostered the Cultural Revolution) and the reformists (who wanted economic modernization and opening up to the outside world and were against the Cultural Revolution). Deng and the reformists won, leading to Deng Xiaoping becoming the paramount leader in 1978. ***There are always political fights about how to govern and who should have what powers. They are especially brutal when the power transition process is not crystal-clear and abided by all the key players who have power. Amid this political fighting there are different factions that both fight with the other factions and compromise to make decisions to govern. For the governing system of an entity to survive (i.e., of a family, an organization, an empire, a dynasty) these factions must put the entity's survival and prosperity above all else, certainly above any individual's opinions and power, and reach compromises to achieve that sustainability.*** That was the case in China at the time. There were factions of leaders of the communist revolution who cared deeply about this new dynasty's survival (i.e., the Communist Party's survival) and were in the positions to make decisions about how it should be managed. In the time between Mao's death and Deng gaining the primary leadership role, a

[102] As quoted in Henry Kissinger, *On China*, 211.
[103] Ji Chaozhu was raised in the United States until he was a junior at Harvard. His brother was close to Zhou Enlai and sent the brother and Ji Chaozhu to the United States to try to build good relations with Americans. When the Korean War broke out he returned to China, became Zhou's interpreter, and later served in the first Chinese delegation to the UN and later as China's ambassador to England. While he told me a lot that I won't discuss to respect his privacy, I don't believe that this is sensitive information.

consensus among those powerful leaders was reached to give the interim leadership role to another senior leader (Hua Guofeng), who was a classic compromise choice in that he lacked the strength to be too offensive to most people and to retain the leadership position. The more hardline Gang of Four faction, which was led by Mao's wife, lacked skills, lacked broad support, and, with Mao gone, lacked the leader's support, so they were quickly disposed of. Deng, who was very experienced, committed to China's communist revolution since its earliest days, and widely respected, was an obvious choice to either be a top administrator (i.e., premier) or a rival to Hua. Over time broad support among senior party loyalists, especially the reformists, emerged for Deng to be the primary leader among equals, which led to his gradual ascendency.

At the same time increased threats from Vietnamese and Soviet activities appeared. In 1978 Vietnam and the Soviet Union signed an agreement to expand their military cooperation, which led to a Russian military buildup in Vietnam, and the Vietnamese government rounded up massive numbers of ethnic Chinese and put them into detention camps. As a principle, ***when there is weak and divided leadership, especially during leadership transitions, enemies see this as a time of vulnerability in which there is increased likelihood that they will make an attack of some sort.*** **With the leadership transition going on in China and with the moves by Vietnam and the Soviets perceived as threatening, that was feared to be the case.**

Phase 2, 1978 to 2013: The Deng and Deng Successors Phase of Gaining Strengths Through Economic Reforms and Opening Up Without Creating Threats to Other Countries

Deng Xiaoping became China's paramount leader in 1978 at age 74 with a wealth of experience under his belt. He was a "reformer," so from 1978 until he died in 1997 Deng Xiaoping's most important policies were conveyed in a single phrase: "reform" and "opening up." Reform meant "market reforms" which meant using the market to help allocate resources and to help motivate people, and "opening up" meant interacting with the outside world to learn, improve, and trade. This led the Chinese Communist Party to start to bring capitalism into the mix[104] and open up to the outside world. Deng knew that these two related directions—to greater "reform" and greater "opening up"—would make China stronger financially if it was not disrupted by the far more powerful foreign powers wanting to prevent the development of the weak China that he inherited, so the key was to pursue these directions in ways that benefited and didn't threaten those foreign powers, most importantly the United States. In 1979 Deng established full diplomatic relations with the US, which was consistent with his strategy to open up and reform China. At the time China was extremely poor—per capita income was less than $200 per year—so China needed the improvement and was no threat to developed countries, especially the US.

Early on, in February 1979, Deng invaded Vietnam with an assault that was similar to Mao's intercession in the Korean War early in his term, in that it was to deal with the growing threat on China's border and to make a clear display of China's willingness to fight to defend itself. After a one-month fight, China withdrew, contending that it made its point.

Early on Deng set out a 70-year plan to a) double incomes and assure that the population had enough food and clothing by the end of the 1980s, b) quadruple GDP per capita by the end of the 20th century (which was achieved in 1995, five years ahead of schedule), and c) increase per capita GDP to the levels of medium-level developed countries by 2050 (at the 100th anniversary of the PRC). Underpinning that goal was a plan to dramatically improve China's education system.[105] He wanted to have a socialist market economy, which he referred to as "socialism with Chinese characteristics" that would be achieved by taking in all facts to "seek truth from facts." He made that radical shift without criticizing Mao or Marxism-Leninism, which he believed meant shared prosperity. Rather than seeing communism and capitalism at odds I am told that these seemingly opposing ideologies were

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[104] China started with market-based reforms and then moved on to what has been called "state capitalism" in which the state controls capitalism. Capitalism means private ownership of the means of production. It flourishes when there are well-developed capital markets that allocate resources, people are allowed to save by investing in these markets to make money, and users of the capital have access to it through the markets. The bigger the capital markets are and the more people are making money through ownership of the means of production, the more capitalism there is. However, unlike in many classic capitalist countries where state has very little ability to direct the activities of companies, in China the government has a lot of control over the companies which is what makes it "state capitalism."

[105] Deng gave a speech in which he said, "Although I realized that it would be a tough job to be in charge of scientific and educational work, I volunteered for the post. China's four modernizations will get nowhere...if we don't make a success in such work."

seen through the lens of Marx's dialectical materialism—i.e., believing that conflicting opposites naturally go together and that the conflicts between them and dealing with those conflicts naturally leads to resolutions of the conflicts, which produces progress along that long development arc. I am told that he saw this coexistence of communism and capitalism as a necessary phase along a development arc toward the ideal communist state. Also the continuity and the legitimacy of the government's philosophy, while making big reform changes to make China richer and stronger, were very important, so the coexistence of communism and capitalism was clearly the right move for China.

Deng also reformed government's decision-making structure. More specifically he moved China's government decision-making process from one that was dominated by a single leader (previously Mao) to one in which the Politburo Standing Committee made decisions using majority voting when consensus couldn't be reached. He also changed the system of choosing the Standing Members of the Politburo from the supreme leader personally selecting members to choosing them via consultation and negotiation with experienced party elders, generally drawing from the most qualified government officials. In order to institutionalize his philosophy and how it would be implemented in this government, Deng shaped a new version of the Chinese constitution, which was adopted in 1982. This new constitution also made a number of changes to facilitate the economic reforms and open-door policies that Deng wanted. It established governance changes such as leadership term limits consisting of two five-year terms (10 years) and limiting the power of one leader by making decision making more collective. The new constitution also provided for greater freedoms such as freedom of religion, freedom of opinion, freedom of speech, and freedom of the press. **These reforms later led to the first orderly and rule-based transition of power from Deng to others in the next-generation Politburo Standing Committee, at first led by Jiang Zemin, then led by Hu Jintao, with these transitions occurring via the prescribed 10-year term limits. Each successive leadership team followed Deng's same basic path of making China richer and more powerful by making the economy more market-driven/capitalist and by increasing China's trade with and learning from those in other countries, with those in other countries feeling more excited than threatened by their interactions and trade with China.**

Reuniting China by regaining the territories that were taken away during the "Century of Humiliation" was also a very important long-term goal. Progress was made by Deng along these lines when in 1984, after a lot of haggling with the UK, it was agreed that Hong Kong would return to Chinese sovereignty in 1997, with its "one country, two systems" approach. Then in 1986 China reached an agreement with Portugal to obtain Macau's return to Chinese sovereignty in 1999.

In 1984 I had my first direct contact with China. My direct contact since, along with the facts I've learned, has affected my perspective. Because these interactions have been so valuable in helping me gain my perspective and would help you understand my perspective, I will refer to some of them when relevant. At the same time, because I don't want to be indiscreet, I won't pass along information that I believe those who gave it to me wouldn't like to have passed along, and I will avoid mentioning the names of any people now living.

In 1984 I first visited China at the invitation of China International Trust Investment Corporation (CITIC), which was the only "window company" (which means the only company that was allowed to freely deal with the outside world), to explain to them how the world financial markets work. The company was set up as an extension of Deng's "reform and opening up" policies and was run by an old Chinese capitalist, Rong Yiren, who chose to stay in China even after his family business was nationalized. CITIC was set up to learn about and experiment with dealing with the outside world and capitalism.

China was very poor and backward then. However it was immediately clear to me that its people were smart and civilized. In this regard it wasn't like most other undeveloped countries I was used to because **the Chinese backwardness was due to the people simply not knowing about or having access to what was available in the outside world and because they were operating in a demotivating system**. For example, I gave $10 calculators as gifts to people, including the highest-ranking people, which they thought were miraculous devices. At the time people couldn't choose their careers or their jobs, they received no financial incentives for working well, all businesses (including small restaurants) were government-owned and bureaucratically run, there was no ownership of property such as one's home, and there was no contact with what the world had to offer in terms of best practices and products.

Because it was clear that the closed door was a barrier that led to two different economic levels to exist in China and in the developed world, it was clear to me that the removal of that barrier was just beginning that would naturally equalize their economic levels, like unconstrained water naturally seeking the same level. It was easy to visualize that change happening. I remember being on the 10th floor of CITIC's "Chocolate Building," giving a lecture and pointing out the window to the two-story *hutongs* (poor neighborhoods) and telling my audience that it would not be long before the *hutongs* would be gone and skyscrapers would be there in their place. They didn't believe me and told me, "You don't know China," and I told them they did not know the power of the economic arbitrages that would happen as a result of opening up. That opening up was the biggest force behind the high rates of improvement that we saw over the last 40 years. While the opening up created a great natural opportunity, the Chinese made the most of it and performed even beyond my highest expectations. They did that by making and implementing Deng's reforms, supported by uniquely Chinese cultural influences. These reforms freed up the Chinese people to achieve the exceptional results laid out in Deng's plan. Globalization and the world wanting to include China in it also helped a lot. The expressed goal at the time that I heard a lot of was to "break the iron rice bowl," which was to not provide demotivating guaranteed employment and assured basic benefits and to replace them with more incentive-based compensation.

Deng was a very smart, eager learner who was helped by knowledgeable outsiders to produce China's economic advances along its desired development arc. He also directed his policy makers to learn from outsiders in the same way that he did. That is how I and many others got invited there. It is also why Deng turned to other world leaders, especially leaders of the "tiger countries" who were culturally aligned with China, especially to Lee Kuan Yew of Singapore, for advice. I remember having a dinner with the head of China's MOFTEC (which was their ministry of commerce) in Beijing in which he rattled off lots of details about things like how Singapore's airport ran (e.g., how long a passenger had to wait to get his bags at baggage claim), how those in Singapore achieved such great results, and how China was going to implement those practices. Many years later I had the opportunity to host Lee Kuan Yew at my house. At that dinner, which included some other esteemed guests, we asked him what he thought about the different leaders at the time, what he thought about great past leaders, and what made great leaders great. We were eager to get his perspective because he had known most of the greatest leaders for much of the last 50 years and was one of the greatest leaders over those 50 years. He said that Deng was the greatest leader of the 20th century. Why? Because Deng open-mindedly learned and changed China to advance his people, he was smart and wise, he was extremely practical, and he delivered great results to his population of about a billion people.

While Deng formally stepped down from the Politburo's Standing Committee in 1987, he remained the de facto leader of China, which continued to open up and become more capitalist at a breakneck pace. I got to be a small part of China's evolution toward capitalism in a number of ways over a number of years.

In 1989 my friend Wang Li (who was responsible at CITIC for bond trading and setting up the leading bond trading platform) introduced me to a group of seven people (of which she was one) who were appointed by seven companies at the request of the visionary economic reformer and historian Wang Qishan to create an organization (the Stock Exchange Executive Council, known as SEEC) to set up the first stock markets in this new China. China was still very poor so SEEC's office was in a dingy hotel and the group lacked adequate funding. Still, this small group had what mattered most—a clear mission to create big changes, smart people of good character, open-mindedness to allow rapid learning, and determination to achieve their goals. To them this was not a job; it was a noble mission to help their country. Over the decades that followed, I saw how they and many others built the Chinese financial markets to become among the largest in the world for the same reason. I was thrilled to help them. Through all this I gained a deeper liking and respect for the Chinese people, the Chinese culture, and the rapid rates of improvement that these forces brought about.

Then, a shock happened that led everyone to question just about everything. **In 1989 a movement to democratize China developed and grew and led to demonstrations.** ***The question of how far to allow demonstrations to go that could be either a) healthy expressions of people's passionate views or b) undesired anarchies or revolutions is encountered and debated by most leaders when internal fights become heated. It is one of the big issues that splits leaders*** (e.g., that debate is now going on in the United States, splitting those who would impose stronger law-and-order adherence and those who would impose weaker law-and-order adherence). At the time of the Chinese pro-democracy demonstrations there were eight weeks of debate and a split among the leadership about how to handle this movement. As Deng himself as a young man was a demonstrator against the Chinese government and a revolutionary until he won and became part of the establishment, I presume he must have in some ways related to those young protestors.[106] Deng made the defining choice to sideline those who would have tolerated the demonstrations more and go ahead with the conservatives' crackdown against this movement. At the time most Chinese I spoke with were worried that China would slip back into the old Mao/"Gang of Four"-type ways. A very close Chinese friend of mine from CITIC, Madame Gu, who was traveling to New York and whose brother was China's Minister of Defense, happened to be with my family at the time so I saw events unfold through her eyes as well as through other Chinese friends' eyes. Madame Gu had been an idealistic follower of Mao in the early years soon after "liberation." Then when the Cultural Revolution came along she lost her husband to persecution (he was forced to commit suicide) and she was shunned by friends under the Red Guard's pressure. She got past that terrible experience to work on behalf of the country she loved and rose to a senior job at CITIC, which is where I met her in 1984. She literally cried at the prospect of slipping back into that time. Like many others she worried that this crackdown marked the end of reforming and opening up China and a return to those old terrible days. The Tiananmen Square protests were a shock to the whole world and significantly set back most countries' relationships with China. However, they didn't keep Deng and his government from continuing with their reforms. With time most of my Chinese friends who were heartbroken about the crackdown thought that the government had made the right move because the greatest fear of these friends was of revolutionary disorder. So, the reforms and the opening-up policies continued.

The economy continued its strong growth, and good relations with other countries resumed. In fact, relations and trade with the West became better than ever as globalization picked up. Globalization, which helped China immensely, can be said to have begun in 1995 with the formation of the World Trade Organization and extended until 2016 with election of Donald Trump. China joined in 2001. Since then China's position in world trade soared. In 2001 the United States had more trade than China with 80% of countries. Now China is a larger trading partner than the United States in about 70% of countries.[107]

During this period of globalization, a symbiotic relationship developed between China and the US, in which the Chinese sold Americans consumer goods that were produced extremely cost-effectively and sold inexpensively and the Chinese lent the US the money to buy their consumer goods. It was a hell of a "buy now, pay later" deal for the Americans. The Chinese liked it because they built their savings in the world's reserve currency by owning the American IOUs and the Americans got all the cheap stuff by borrowing the money to get it. It struck me as odd that the Chinese, who were earning about one-fortieth of what Americans earned on average, would be lending money to Americans to buy consumer goods since rich people are in a better position to lend than poor people. To me it was a shocking reflection of how much more Americans were willing to get into debt to finance their overconsumption and how much more the Chinese valued saving. It was also a reflection of how those in emerging countries want to save in the bonds/debt of the leading reserve currency countries, which leads the emerging countries to build debt assets and contributes to the reserve currency countries becoming overindebted.

At the same time the Chinese had to deal with an internal debt crisis that they allowed to grow. In 1991 the debt and economic problems called the "triangular debt crisis"—because 1) China's five major government-owned banks had for a number of years lent to 2) large, inefficient, and unprofitable state-owned enterprises with the implicit guarantee of 3) the central government—had to be dealt with to improve the system. Restructuring the economy to become more efficient by "breaking the iron rice bowl" was led by Zhu Rongji, who was a bold reformer at the top of the party. This process was extremely controversial and hurt a lot of people who benefited from the old system, so it took a lot of courage and intelligence, as well as support from the top, to execute. World best practices (e.g., using "bad banks" to take, sell off, and wind down bad debts) were used with practical

[106] In 1919 he demonstrated as part of the May Fourth Movement against the Chinese government being so weak in allowing the Treaty of Versailles, which carved up the world for the winners of World War I, to give the eastern part of Shandong province to the Japanese rather than give it back to China. Also, when on a study program in France, he demonstrated against the Chinese government for not sustaining the program. All through his life he was a revolutionary until he won and became part of the establishment.
[107] https://www.lowyinstitute.org/the-interpreter/chart-week-global-trade-through-us-china-lens

understandings for the Chinese environment. It went on to help clean the slate to start over in a better way, which invigorated growth. He also led the putting into place of numerous other economic reforms. The most senior economic policy makers today helped him back then and learned from those experiences, which are helping them in their current jobs. He became premier in 1998 and in that capacity continued to aggressively pursue reforms to modernize and make the Chinese economy more efficient. He retired in 2003.

In 1995 I had my 11-year-old son, Matt, go to China to live with Madame Gu and her husband and go to what was then a poor local school (*Shi Jia Hu Tong Xiao Xue*).[108] Matt had been to China with me many times over the years since he was 3 years old. He would tag along to meetings in which the kind Chinese people I was meeting with would give him cookies and milk while we met. He attended lunches and dinners that were fun banquets and had gotten to know Madame Gu well, who was very loving with him so they had a wonderful relationship. So he fell in love with the Chinese people and China. Madame Gu knew that I (and my somewhat hesitant wife) would love for Matt to live in China and have the life of a local Chinese child. We all knew that it would be very tough for him, but good tough. His living conditions would be basic (e.g., there was typically hot water only two days a week). Schools in China then, like most everything else, were poor. He didn't speak the language so he would have to learn through immersion, which he did. Though his school was poor (e.g., there wasn't heat until late November so students wore their coats in classes), I saw how they had smart and caring teachers who provided the children with an excellent, complete education that included character development. While Matt's lifestyle was poor, he was superbly educated, loved, and better developed than in our rich community. He built deep attachments with his teachers and his friends that still exist. The experience changed his life forever and led him to set up a foundation to help Chinese orphans that he ran for 12 years, which brought him and me into many more experiences with Chinese people and Chinese culture in China. Because I was excited about China and its prospects **I, via my company Bridgewater, also hired a local investment team that was on the ground to invest American institutional money in Chinese businesses that looked attractive to me, which I pursued for a couple of years and discontinued because I found it too difficult to run it and Bridgewater at home**. I did a couple of tiny investments that were profitable and never called on the institutional investors for their money to invest there. These experiences, plus those with the Chinese friends I previously knew, brought me into contact with a wide range of Chinese people, from the humblest to the highest, whom I came to really like and respect.

In 1995-96 it became widely known that Deng's health was failing. I was told that Chinese leaders worried that his passing would be viewed as an opportunity for those who opposed Chinese authority to challenge it, and they were especially worried that the Taiwanese would have a referendum in favor of independence, which would be intolerable. A new pro-independence leader in Taiwan (Lee Teng-hui) was just elected and treated in supportive ways that were traditionally avoided. US-China tensions were rising. Madame Gu knew the Chinese official who was in charge of relations with Taiwan and arranged for me to meet with him to help me understand the Chinese perspective. He explained that China would do anything, including going to war, to prevent a referendum in Taiwan from passing and leading to independence, and he reiterated what I conveyed to you before about what reunification with Taiwan meant to the Chinese leaders. He also explained that if a referendum and move toward independence happened and the new leader let it happen, it would be intolerable for the Chinese people because that leader would be shown to be too weak to lead. So it simply could not happen. He also explained that they were watching the weekly poll numbers indicating how widely supported independence was and they observed that Russia's brutal crushing of rebels in its Chechen republic led to reduced support for independence, and he explained that the Chinese needed to make clear their position via a series of missile tests in the Taiwan Strait. In March 1996, President Clinton, who was approaching a presidential election, sent two aircraft carrier groups into the Taiwan Strait to sail through it, displaying American support. Lots of military movements and threats on both sides happened. The Taiwanese never had the referendum so my Chinese friends thought their moves were successful, and the Chinese never moved beyond the threats, which led the Americans to believe they humiliated the Chinese (which I only recently found out from an American friend who was involved in sending the American carriers to the Taiwan Strait). That put an end to the "Third Taiwan Strait Crisis." As a result of this crisis, the Chinese never wanted to be in an inferior military position again, so they significantly built their military capabilities for operating in that region. I point this out to convey a) how important Taiwan's reunification with China is and

[108] To clarify, while Madame Gu's first husband passed, she remarried so I'm referring to her second husband.

b) how risky the situation was 25 years ago when China was not nearly as strong militarily as it is now, so this is why **I would worry a lot if we were to see a "Fourth Taiwan Strait Crisis."**

Deng died on February 19, 1997.

Deng's results, and the Chinese people's results, speak for themselves. When Deng came to power about 90%[109] of the population lived in extreme poverty; at his death that number was around 40% and fell to less than 2% by 2013.[110] From the start of Deng's reforms in 1978 until his death in 1997, the Chinese economy grew at an average rate of 10% for nearly 20 years, so the economy grew over six times in size with an average inflation rate of about 8%. Its reserves grew from $4 billion to nearly $150 billion (inflation-adjusted to today's dollars, reserves grew by over $250 billion). Reserves went from covering 60% of annual imports in 1978 to over 125% of imports by 1998 (and by that point reserves covered nearly 800% of foreign debt service).

Deng's successors, Jiang Zemin and Hu Jintao, and their teams continued the reforms and the advances through many ups and downs (though more ups than downs) like the 1992 recession. During this period, the "triangular debt" problem (in which state-owned banks lent money to state-owned enterprises due to implicit guarantees by the central government) had to be dealt with, and in 1997 the Asian financial crisis came along. China, with Zhu Rongji assigned to run the effort, did a very successful debt and corporate restructuring to resolve the problem, which included the government selling off bureaucratically run and unprofitable state-owned enterprises, the building of exports and foreign exchange reserves, cracking down on corruption, and developing and improving markets and market functioning. These and more market and economic changes were all important evolutionary steps along the way. I felt lucky to be intimately involved at the grassroots level with some of them—e.g., the debt restructuring and asset sales—that gave me an intimacy of contact and the perspectives I now have. Though these events seemed bigger at the time than they appear in retrospect, they were all significant achievements of smart Chinese people who were committed to Chinese progress. Along the way I also ran into cases of corruption and bad behavior, and the ongoing struggle between the good and the bad that led to the reforms and results we have seen.

This phase in the cycle was a time of great progress in China. ***As is typically true in postwar periods of peace and prosperity, when the leading power isn't threatened and the emerging countries aren't yet threatening, the leading emerging countries (in this case most importantly China) can learn a lot from the leading powers (in this case most importantly the United States) as they work in a symbiotic way until the emerging powers become powerful enough to threaten the leading powers. In addition to benefiting from the learning, they benefit from trading with each other until that becomes disadvantageous, and they benefit from using the capital markets in a symbiotic way until that becomes disadvantageous.***

More specifically, the 1978 to 2008 period of fast growth in China came about because 1) the world was still in the peace-and-prosperity phase of the Big Cycle in which globalization and capitalism—i.e., the beliefs that goods and services should be produced wherever they can most cost-effectively be produced, there should be free flows of talented people without prejudices to their nationalities, nationalism is bad, and global equal opportunity and profit-seeking capitalism are good—were the widely accepted paths to a better world at the same time that 2) in China in 1978 Deng Xiaoping swung the pendulum from communist and isolationist policies that worked terribly to "market"/"state-capitalist" and open-door policies that worked terrifically. That led China to learn a lot, attract a lot of foreign capital, and become a giant exporter and big saver.

As the Chinese learned and became more capable of producing goods cost-effectively, they provided the world with inexpensive goods at first and more advanced goods later, and in the process became much richer. Other emerging countries did so as well, the world expanded, and the wealth gaps between the richest countries and the poorest countries narrowed as the poorest countries rose the most while the richest countries grew at slower rates. Through this period the system raised almost all boats, especially the boats of the globalist elites, and the threats on the horizon weren't apparent. During this period China rose to be a nearly comparable power to the United

[109] https://www.worldbank.org/en/news/feature/2010/03/19/results-profile-china-poverty-reduction
[110] https://data.worldbank.org/indicator/SI.POV.DDAY?locations=CN

States and together they created most of the new wealth and new technologies while the rest of the world fell back relative to the leaders. Europe, which was the source of the greatest global powers from the 15th century until the 20th century, became relatively weak, and Japan and Russia became secondary powers. All other countries were peripheral; countries like India and a few emerging countries improved their conditions, though none of them achieved world power status.

Since 2008: The Emergence of US-China Conflicts and the End of Globalization

As is classic, periods of prosperity financed by debt growth lead to a debt bubble and a large wealth gap. The bubble burst in 2008 (like in 1929), so the world economy contracted and middle-class Americans and others in other countries were hurt (like in 1929-32), interest rates were pushed down to 0% (like in 1931), which wasn't enough easing so central banks printed a lot of money and bought a lot of financial assets in 2008 (like in 1934), which drove financial asset prices in most countries up starting in 2009 (like in 1933-36), which benefited those people who had financial assets (the "haves") more than the "have nots" so the wealth gaps grew (like in 1933-38). That is when the "have nots" who were losing to globalization, especially those who were seeing their jobs being taken by the Chinese and by immigrants, started to rise up against the elites who were benefiting from globalization. As is typically the case, with economic bad times coinciding with large wealth gaps, populism and nationalism grew around the world, like in the 1930s. That is when the threats of the rising powers challenging the leading world powers started to become more apparent and the era of peace, prosperity, and globalization started to wane and the era of conflicts between the rich and the poor within countries and between the rising country (China) and the dominant world power (the US) began.

During this period the Chinese held a lot of US-dollar-denominated debt—especially of US government agency lenders Fannie May and Freddie Mac. For quite a while the US government didn't let the Chinese holders of this debt know if the US government would stand behind this debt. I had conversations with the top Chinese holders of this debt as did David McCormick (who is now CEO of Bridgewater and was then the US Treasury Undersecretary for International Affairs) and Hank Paulson (who was then US Treasury Secretary). We all were impressed with their consideration and cooperation as they approached the dilemma that the US caused.

In November 2008 in the midst of the global financial crisis, leaders of the G20 countries gathered in Washington, DC, and agreed to jointly stimulate their economies through aggressively stimulative fiscal and monetary policies that required substantially increasing government debt and having central banks create money and credit to finance it. **During the 2009-12 period, debt growth in China was significantly faster than economic growth as a result of large fiscal and monetary policy stimulations that were deployed to help pull the Chinese and the world economies out of their weakness.**

Phase 3, 2012 until Now: The Xi Phase of Becoming a World Power

In 2012 Xi Jinping came to power and a new administration was chosen. Following the well-established sequence, Politburo members were chosen, then ministers were chosen, then vice ministers were chosen, then those in senior subordinate roles were chosen, and then the first rounds of plans were made. As with most new leaders coming into power, there was a lot of excitement and eagerness to make big improvements. The process of coming up with their plans included many brainstorming sessions about what policies and plans were most appropriate. I was lucky enough to participate in a couple of these in which there were very frank conversations about how to deal with many difficult and sensitive situations, including how to deal with corruption, excessive debt, and other such things. It was a wonderful collaboration of people with different perspectives who wanted to help. The frankness, open-mindedness, friendliness, and intelligence that was brought to these discussions was wonderful. These policy makers clearly felt that economic reforms (i.e., moving to more market-driven resource allocations that included providing less support to uneconomic state-owned enterprises and less protection to entities that made bad loans) had to be made, corruption had to be dramatically reduced, and rule of law needed to be increased.

Since then I have closely studied their financial and economic circumstances and have had numerous conversations with top economic policy makers about their circumstances and policies—about their excessive debt growth, the development and management of their shadow banking system, the development of financial markets, the vulnerabilities in their financial system, the trade dispute with the US, other disputes and cooperations with the United States, and other things that were going on in the world. I tried to see things through their eyes and think about what I would do if I were in their shoes and they tried to see things through my eyes. We discussed how things work (i.e., cause/effect relationships), how they worked throughout history, how they were working at the moment, and we discussed principles for dealing with them well. In other words I shared with them what I saw in much the same way that I am sharing it with you in this writing, and we discussed it, looking at the circumstances in much the same way doctors would look at and discuss medical cases.[111] As you probably know by now, I believe that everything works like a machine with timeless and universal cause/effect relationships. Chinese leaders do, too, so we would talk about these cases and how the timeless and universal principles of how to handle such things would apply to the situations at hand. I found that when I gained the complete picture of all the considerations they faced that I almost always would have pursued the same policies that they pursued because the mechanics of the situations warranted these treatments. I of course focused most on economic and market issues, though our discussions encompassed other issues like human nature, culture, and geopolitics as well.

Let me give you an example. The government is now, for good reason, concerned about preventing a property market financing bubble and preventing dangerous lending practices pertaining to it because of classic signs of that happening. Guo Shuqing—who is an extremely capable man, head of the China Banking Regulatory Commission and also the central bank's (i.e. the PBoC's) party general secretary—has put into place three new "red lines" to limit properly developer's corporate debt. They are 1) asset-liability ratios above 70 percent., 2) net debt to equity of 100 percent, and 3) short term debt to cash of 100 percent. He also mandated that property developers' new bond could not be taken in to be at levels that are greater than 85 percent of their total outstanding debt and many more rules like this. You get the idea. While anyone can quibble over whether these are the exact right restraints, any knowledgeable person would tell you that they are reasonable and that they stand in contrast with the lack of controls that were allowed to exist on US lending institutions before the lending binges that led to the bubble that led to the 2008 bust. So, one will be faced with the philosophical question of whether regulatory activities like these are better or worse than a more free-market approach. While I won't delve into that question now, I will say that the regulators that I have gotten to know are almost all very capable, committed to doing the right things for the system, and doing the sensible things that I would do if I were in their shoes operating within the more interventionist system mandated from the top. Also, I have found that most people whom I speak with about such things and are critical don't have adequate knowledge of the circumstance and haven't heard the perspectives of the people who are setting these policies.

As far as economics and markets are concerned, under the Xi administration China aggressively pursued policies to reform and open up its markets and its economy, to gain control of and manage its debt growth, to more flexibly manage its currency, to support entrepreneurship and market-oriented decision making especially in industries that China wants to be a world leader in, to establish sensible regulations run by well-developed regulatory organizations, to build its capabilities in technologies and industries of the future, to broaden the economic benefits to extend to those people and those parts of the country that were lagging the most, and to control environmental pollution. It accomplished a lot that was consistent with these objectives. Still, many people don't see it that way, which I suspect is because a) they are coming at the same time that other controls are tightening up, b) the privatizations and reforms of state-owned enterprises aren't as fast as some people would like, c) some of the supports (like credit availability) for small- and medium-sized organizations are not as good as they are for larger state-owned enterprises (which has more to do with the challenges of getting money and credit to SMEs than with the government's reduced intentions to foster the development of SMEs), d) the government still sometimes expects banks and companies to do uneconomic lending and directs the economy so much from the top down (because it wants to guide policy for what it believes is best for the whole), e) China coordinates with its businesses in pursuit of national goals, f) China doesn't let some foreign companies operate on the same terms as Chinese companies in China, and g) China coordinates fiscal and monetary policy to regulate the economy to meet its objectives more than is done in the major reserve currency countries—all of which are typically unpopular with capitalist outsiders. However, the biggest reason for the criticisms, more important than any of these, is that most people don't understand the perspectives of those in charge, and they don't understand the range of circumstances that influence their decisions and how they are weighing them. For many years I have looked at economic and financial issues in China and discussed them many times with top Chinese economic policy

[111] I never asked questions that would put them in the awkward position of having to choose between conveying confidential information and having to decline my request. I just wanted to see things through their eyes and help, like a doctor looking at cases with other doctors would discuss what's happening and what one in these positions should do about them.

makers and, from this informed perspective, can tell you that I would have done almost the exact same things as they did if I were in their shoes. So, I think the main reason I see what the Chinese have been doing in economics and markets more favorably than most non-Chinese observers is that I have been lucky enough to have had the opportunity to see things through their eyes and to discuss and agree on how the economic and market machines work.

The biggest difference between the American and Chinese approaches to economics and markets is about the role of the state relative to the role of the market. While I won't delve into the merits of these alternative approaches, I will say that ***it is up to all government leaders in all countries to get the best balance between "state" (i.e., government influence and control of the economy) and "capitalism" (free market control of the economy and capital markets) through the proper management and coordination of monetary and fiscal policy.*** They each do it differently. **How the Chinese are doing this can be confusing to people who don't discuss what they are doing with their policy makers and can't see the consistencies that exist amid these seeming inconsistencies.** For example, President Xi has said that he wants to reduce the government's role in pricing and allocating resources at the micro level, increase capital market development, and stimulate entrepreneurship, at the same time that he wants to strongly direct the macroeconomy, more strongly regulate markets, deliver public services, and follow Marxism. This can be confusing to those who are used to these things not going together, aren't speaking with the policy makers to understand all of their circumstances and their perspectives about them, and aren't watching closely the decisions that they are making. I believe that I see the consistencies of these seemingly conflicting policies and by and large would do what they are doing to make my financial system, economy, and country stronger if I were in their shoes. In any case, **I suggest that you not view what they are doing through a lens of simple stereotypes (e.g., of "what communists do") and accept that they will run their economy via monetary and fiscal policy in the ways that they believe are best for them and seek to understand those ways better. Since their results are extremely impressive, we should not expect them to abandon their approach for ours and we should study their approach to see what we can learn from it, the same way they have studied and learned from ours. After all, what we have is a competition of approaches and presumably what we want most is to follow the best approach.**

As far as foreign policy is concerned, during the Xi term, China has gotten stronger and more forceful while the United States has become more confrontational. More specifically, from 2012 until now China's strengths grew; that became increasingly apparent and more openly shown (e.g., the Made in China 2025 plan openly showed bold plans to dominate certain industries that the United States was dominating) at the same time that the American populist backlash emerged. This became most apparent after the election of Donald Trump.

In 2016 Donald Trump's election as a populist president of the United States came as he tapped into the sentiment of those who suffered from globalization and were sympathetic to the view that China was unfairly taking their jobs and unfairly competing. That is when globalization began to be smothered and protectionism and nationalism began to be nurtured. At the time, China had become so obviously strong and followed a number of practices that American policy makers and most people found objectionable. Also, President Xi didn't hide China's economic strength and its ambitious goals to dominate a number of industries that the US was dominant in, to go global economically, and to more forcefully assert itself in the South and East China Seas and with countries in the ASEAN region. As a result, the perception of China as a threat/enemy emerged, globalization reversed, and the "wars" began, starting with the trade war and economic war, expanding to the technology war, the geopolitical war, and most recently the capital war. During these years, China has continued to grow internally and expand its investment and business activities outside its borders. For example, Xi developed the Belt and Road Initiative, which that will cost over $1 trillion and impact around 70 countries, and it invested in many countries beyond that, especially in the developing world. While these moves have been appreciated by many of those who got money, resources, trade, and soft-power benefits (such as roads and other infrastructure), at the same time they were resented by those in recipient countries who are having problems paying back their loans and find China too controlling, and by the United States because it brought about China's greater influence in these countries, which is coming at the expense of US influence.

As far as China's internal politics are concerned, in 2018 Xi a) consolidated power around him and his supporters (called "the core" leadership), b) amended the Chinese constitution to make clear that the Chinese Communist

Party has control over everything, c) eliminated term limits for the president and vice president, d) created a supervisory commission to assure that government officials are operating consistent with the party's wishes, and e) enshrined Xi's perspective called "Xi Jinping Thought" into the constitution. Some people are concerned about this being a move to more single-leader/autocratic leadership akin to Mao's leadership. I'm not capable of having a reliable opinion about internal political matters in China, but I will pass along what I am told, which is that this controversial move to tighter controls and more extensive leadership by Xi came about because of beliefs that China is entering a more difficult phase in a more challenging world and that at such times unity and continuity of leadership is especially important, and will be even more important over the next few years. As mentioned earlier, ***during periods of great crisis more autocratic and less democratic leadership tends to be preferred***.

Conflicts between the US and China over trade, technology, geopolitics, and to some extent, capital intensified. Then we got the pandemic, the economic downturn came, the massive printing creation of money and credit, and the various types of conflicts (most obviously the racially motivated protests and riots) occurred, and we are now where we are. Where is that, and, in a nutshell, how did China get here?

Conflicts over stealing intellectual property, especially through cyber espionage, have also increased a lot. I am told that China and the United States have both been much more aggressive in cyber and non-cyber spying, though they have done it differently. I'm not an expert on this issue, but I have spoken to **many Americans in positions to know who allege that Chinese stealing of intellectual property from companies is much more extensive**. For example, in a February 2019 survey, 1 in 5 North America-based companies on the CNBC Global CFO Council said that China had stolen their IP within the last year.[112] If you want to read some American studies some are recommended in this footnote.[113]

As we conclude our look back at what happened, it is worth a quick recap.

Over the last 40 years, China's shift from isolation to opening up and from hard-core communism to "market reforms" and capitalism has had a greater impact on the economies of the Chinese, the US, and the world than anything else. What happened a) in China and in the US, b) between them, and c) between them and the rest of the world have caused the biggest changes in the world. More specifically, as a result of China's opening up and reforming its system to learn from foreign countries, obtain foreign capital, and incorporate capitalistic techniques, it learned a lot, efficiently produced a lot, exported and earned a lot, lent and invested a lot globally, became a lot richer and more powerful, and radically changed itself and the rest of the world. For most of those years, that occurred in a classic period of global peace and prosperity in which the leading empire wasn't threatened and globalization and cooperation flourished. The period lasted until around 2008-10 when the United States and the world became more nationalistic, confrontational, and protectionist, following the archetypical Big Cycle progression. Over just these 40 years China transitioned itself from one of the most backward countries judging by my eight measures of power to one of the two most powerful countries, most importantly economically, technologically, militarily and geopolitically.

The results of their policies are reflected in the table below, which shows just a few representative statistics. They and most other stats are extremely impressive. For example, output per person has increased 25 times, the percentage of people living below the poverty line has fallen from 96% to less than 1%, life expectancy has increased by an average of 10 years, and the average number of years of education has increased by about 80%. I could go on and on rattling off statistics in virtually every area that were equally impressive. China is now clearly a rival of the United States in a number of areas.

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[112] https://www.cnbc.com/2019/02/28/1-in-5-companies-say-china-stole-their-ip-within-the-last-year-cnbc.html

[113] Relevant studies include "How China's Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World," "Section 301 Report into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation," "China's Technology Transfer Strategy: How Chinese Investments in Emerging Technology Enable a Strategic Competitor to Access the Crown Jewels of US Innovation," and "The Report of the Commission on the Theft of American Intellectual Property."

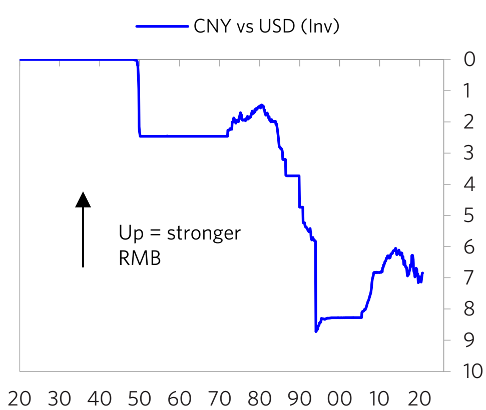
China's Development Since 1949 and 1978

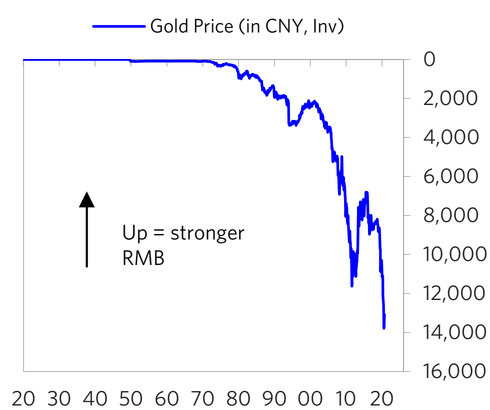
	1949	1978	2018	Δ Since 1949	Δ Since 1978
RGDP Per Capita*	348	609	15,243	**44x**	**25x**
Share of World GDP	2%	2%	22%	**12x**	**11x**
Population Below the Poverty Line ($1.90/day)**	---	96%	1%	**at least -96%**	**-96%**
Life Expectancy	41	66	77	**+36 Yrs**	**+11 Yrs**
Infant Mortality Rate (per 1000 births)	200	53	7	**-96%**	**-86%**
Urbanization	18%	18%	59%	**+41%**	**+41%**
Literacy	47%	66%	97%	**+50%**	**+31%**
Avg Yrs of Education	1.7	4.4	7.9	**+6.2 Yrs**	**+3.5 Yrs**

**USD 2017, PPP-adjusted*

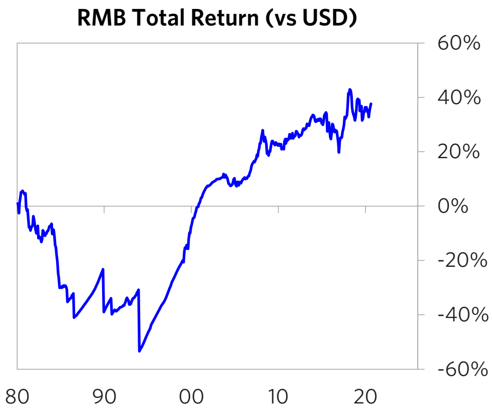
***The World Bank only has poverty data back to 1981*

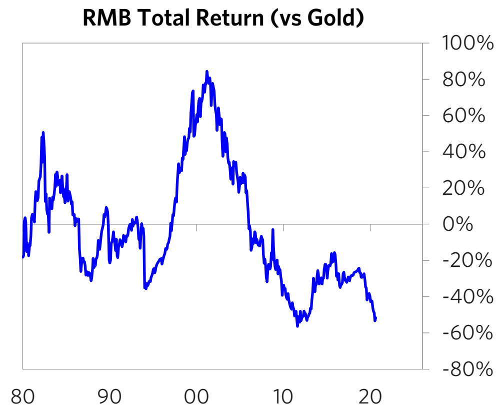
As for the value of money, the charts below show the value of Chinese currency measured in dollar terms since the introduction of the RMB in 1948. As shown, the RMB was fixed against the dollar and gold until 1971 when a) the US dollar devalued against gold and most other currencies, including the RMB and b) all currencies (including the RMB) devalued against gold. That is when China, as well as the US and most currencies, went to a fiat monetary system and inflation rates accelerated. The initial appreciation of the RMB relative to the dollar hurt exports and the economy, which led to devaluations of the RMB from 1980 to 1994 totaling 83% (or roughly 12% per year), which pushed the average inflation rate during this period up to 7.8%. From 1997 until 2005 it was firmly pegged at 8.28 yuan per USD though not freely traded. In July 2005 the RMB was de-pegged from the USD and was managed against a basket of foreign currencies (starting at 8.11 yuan per USD). Since then the RMB has had some fluctuations but hasn't depreciated below the 2005 rate (when de-pegged). The chart on the left shows the spot price in USD terms and the one on the right shows it in gold terms. As shown, since 2014 the RMB has declined a bit (by about 2% per year) versus the dollar and a bit more (8% per year) against gold.





Because the interest rate earned from holding the Chinese currency was not included in these spot prices and the interest rate one would have received by holding the Chinese currency was higher than the average interest rate from holding dollars and was higher than the 0% interest rate one gets from holding gold, the total returns of holding China's RMB were higher than shown in the previous charts. **As of now I only have Chinese interest rates going back to 1980; the chart shows the estimated total return of holding the Chinese currency since then in terms of both dollars and gold.**





[114]

The key to running a sound currency policy that produces a sound credit system that works for both borrowers and lenders is to not have the currency produce any big rises or declines in relation to either other leading exchange rates or goods and services prices. China has been managing the exchange rates and the interest rates to do that since around 1985.

[114] Total returns vs USD are calculated using tradable market returns where available, extended back with data on interest rates and spot exchange rates. Total returns vs gold are constructed using data for interest rates, spot exchange rates, and USD gold prices.

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